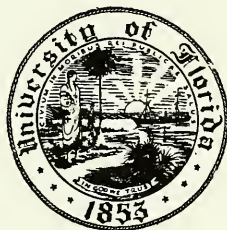



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PSYCHOLOGY OF HUMAN DEVELOPMENT

Psychology of Human Development

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To the college student who is interested
in a most fascinating subject:
man as he develops

Preface

A text on human development may be expected to have many purposes, for this field represents one of the most intricate subjects known to man. As a result, this book has several closely related purposes. It first endeavors to explain key terms, basic methods, and the principles underlying human growth. Then it surveys and interprets factors affecting development. Analysis of developmental sequence is supplemented by an exploration of motivational and behavioral traits at each level of growth and maturation. An attempt is made to impress upon the student the continuity of human development: each age level must be considered in the light of past developments. The pattern of each stage of life is also brought into the spotlight in order to facilitate a cross-sectional understanding of the person in a particular stage of development under varying circumstances.

This compact treatment of developmental levels enhances the explanation of the interplay of forces at any given stage. Moreover, evaluation of the role or meaning of any developmental phenomenon or process cannot be complete without a proper reference to the individual as an organism and as a self, both of which manifest or are affected by this change.

Throughout the book, the emphasis remains on the psychological level of existence. The insertion of facts concerning physiological development is restricted to those having a direct bearing on mental, emotional, and related processes. The continuous interaction of persons of different ages is stressed since the infant or child, for example, not only is affected by his parents, grandparents, or other adults but also affects them in a variety of ways. Because each individual is highly influenced by his social environment as a self and personality, the role of various environmental, societal, and cultural factors is pointed out frequently.

The developmental sequences are treated with respect to resources, abilities, and limitations. This point is elaborated when normative data pertaining to various factors of growth are brought in and when developmental tasks and hazards for each stage of life are identified.

The often neglected phases of life—adulthood and senescence—are given extensive treatment. There is a great need to convey a better understanding and genuine appreciation of the adult phases of life, especially since most of the students for whom this book is intended will be on the verge of adulthood.

It is hoped that this book will fulfill its *raison d'être* by contributing to a fuller understanding of the individual throughout his life span. Moreover, its principles and generalizations may serve as guides in promoting prediction of the organization and functioning of personality and behavior at various levels of human development in the present trend of American life.

The experimental edition of this book was published in 1959 by the University of Detroit under the title *Developmental Psychology*. It was used by six instructors as a text in developmental psychology. Their experience and the observations of some five hundred students during the same year have been drawn upon in preparing the present expanded edition.

This book has several authors and contributors. Dr. Eugene J. Albrecht authored four chapters of it. He also participated in the planning of the outline and objectives as well as in critical examination of most chapters. Robert P. O'Neil of the University of Detroit psychology department wrote one chapter and shared the writing of another chapter with Louise T. Gratson. Sister Mary Gabrielle Hoefer, R.S.M., read several sections of the manuscript and made many fine additions to them. Madonna J. Rocheleau skillfully drew most of the illustrative material, part of which is original.

Appreciation is expressed to Drs. Katharine M. B. Bridges, Charlotte Buhler, Lawrence K. Frank, Robert J. Havighurst, Dorothea McCarthy, Bradley M. Patten, and Robert R. Sears, and to the following publishers and organizations for their permission to include in this volume their copyrighted material: McGraw-Hill Book Company and its Blakiston Division; Row, Peterson & Company; John Wiley & Sons; Joint Committee on Health Problems in Education of the National Education Association and the American Medical Association; the Fact Finding Committee of the Midcentury White House Conference on Children and Youth; Society for Research in Child Development; and a number of professional journals.

Justin Pikunas
Eugene J. Albrecht

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SECTION

I

BASIC APPROACH

WITH THE emergence and development of modern science, man vastly extended his fund of knowledge. More important than the specific facts acquired, however, were the invention and refinement of techniques for furthering knowledge and understanding. Such techniques, although applicable to a wide range of human inquiries, are not the only means of obtaining knowledge. Nonetheless, through the persistent use of these techniques, man can anticipate continuing success in attaining his threefold goal of knowing, predicting, and controlling the events about him. He may look forward hopefully to new penetrations of the unknown: the fundamental laws and principles which express the consistencies of human behavior and the events which surround man.

Intelligent comprehension of scientific facts and laws, however, must be built upon an understanding of methods employed in arriving at them. The integration of diverse findings takes the form of principles. Section I is concerned with these methods and principles.

CHAPTER

I

Introduction

SCOPE OF DEVELOPMENTAL PSYCHOLOGY

In the world of today, with its expanding technology, increasingly complex social structure, and ideological conflicts, man faces many problems in his quest for happiness. New challenges, hazards, and decisions constantly face him; change is the order of the day. But do these outside problems constitute any greater challenge for man than those he encounters as he progresses satisfactorily from the earliest stages of life to the period of old age? Is the complexity of the physical world comparable to the marvelous intricacy of the human beings who inhabit it? Careful analysis makes the answer to these questions an emphatic "No!"

Since the human being is so complex and faces ever-new problems and decisions as he goes through life, it is essential that he know and understand himself. The armchair speculations, the old wives' tales, and the widely held beliefs and advice of earlier times—many of which have endured to the present day—have been found sadly wanting. True, literature attests to the fact that many penetrating analyses of human behavior have been achieved in the past, but literature also reveals many patent absurdities. It therefore becomes the task of modern science to evaluate critically what has been believed previously and to deepen man's knowledge of the universe and of himself. Developmental psychology is dedicated to one aspect of this search for knowledge: an understanding of the basic processes and dynamics underlying human behavior at the various stages of the life span.

As an individual reviews his own life, it becomes clear that he is not the same today as he was in past years. He is still the same person, as the ultimate nature of his being has not changed, but his personality and

behavior traits are far different. Such often-heard expressions as "Don't be childish" and "Act your age" clearly indicate that what is normal and expected behavior for one age level is not typical of another. The needs, desires, and aspirations of the individual undergo continuous modification. Beliefs, opinions, attitudes, emotional responses, intellectual abilities—all the dimensions of personality—change throughout man's life span. In order that man may know and understand himself and those about him better, developmental psychology seeks to trace the sequential changes in human personality. With scientific methods and the aid of specialized techniques for making systematic observations, developmental psychology seeks to find order in what frequently appears to be chaos. With this knowledge the individual is often able to help his fellow man in times of stress instead of merely remaining a perplexed spectator. He is also better able to understand his own motivation. As a result, he is better equipped to prepare for the future. This should not be interpreted to mean that the mere knowledge of facts and principles automatically establishes an individual as a well-adjusted person. Nor should the reader assume that developmental psychology is the study of how to live happily and successfully. It is rather an area of systematic, scientific observation and interpretation.

The sequential changes that occur in human personality and behavior include not only the unfolding and perfection of different dimensions but also the gradual deterioration of those dimensions. Thus, intellectual development encompasses both its emergence and perfection in the years of childhood and adolescence, and its gradual impairment in the late years of life. In order to understand personality and behavior, therefore, it is essential to trace the sequence of changes that occur in childhood and adolescence and also in the adult and later years of life. The significance of these later periods is great because the percentage of persons in this population group, as well as their influence on society, is growing at a considerable rate.

GENERAL APPROACHES TO DEVELOPMENTAL PSYCHOLOGY

As will be seen in Chapter 2, there are several over-all approaches to a systematic study of developmental phenomena. As with the various specific tools and methods used, certain advantages and disadvantages are inherent in each approach.

One approach is to treat some specific dimension of human behavior or personality throughout the entire life span, or at least throughout some continuous portion of it. In this dimensional approach the changes in social behavior might be examined, for example, by starting with the presocial behavior of the newborn infant, continuing through the en-

larging socialization modes and tendencies of expression characteristic of childhood, adolescence, and adulthood, and concluding with gradual restriction of social interaction in old age. This frequently used approach has the decided advantage of maintaining continuity of thought; the student of human development is not compelled to skip from one aspect of personality to another. Consequently, the entire sequential pattern may be studied with a present process or activity clearly related to what has happened before and to what can be expected to occur in the future [1].

In achieving continuity of thought, however, the dimensional approach has its limitations. Man is not merely a social being, an emotional creature, an intellectual entity—he is all these and more at all times. His social interaction with others cannot be isolated from his intellectual abilities or from the multitude of other factors which constitute him. Hence, to consider only one aspect separately from the others is to ignore the totality of the human being.

A major feature of this approach is the establishment and application of developmental norms. Knowledge of the average course and rate of development of specific abilities and traits is extremely important for parents and teachers—in fact, for all persons concerned with human growth and welfare—and is essential for the clinician in diagnostic work. However, rigorous application of such norms is exceedingly dangerous. That an individual is somewhat ahead of or behind “schedule” does not necessarily signify that he is precocious or retarded. The norm represents an average for a group of individuals—individuals who vary among themselves. Actually, it is possible that no one in the normative group corresponds exactly to the norm. Therefore, it is essential that the degree of variability among persons be taken into account whenever such norms are applied to an individual case. Much parental anxiety would be alleviated if this basic principle were fully recognized. Moreover, as will be seen in Chapter 3, the development of different traits and abilities does not proceed at a uniform rate. A person may be slightly ahead of schedule in regard to some factors and slightly behind schedule in others. Thus, it is important to view the individual as a totality.

The second general approach to the study of human development consists of an examination of man’s various capacities and behavioral characteristics at different developmental levels. That is to say, the goal of the developmental-level approach is an understanding of the *total* person with his various needs and problems, abilities and achievements, and motives and dynamics at each particular phase of life. Rather than seek to answer such a question as “What is the general course of intellectual growth and decline?” this approach attempts to answer such questions

as "What are the typical behavioral patterns and dynamics of the infant, the child, or the young adolescent?" [2, 3].

It should be noted that at one developmental level a particular personality or behavior variable may be exceedingly important; at another level this same aspect may be relatively unimportant or even nonexistent. Being accepted by one's peers, for example, is a major goal of the older child and adolescent, leading the individual to alter his behavior patterns considerably. The infant or very young child, on the other hand, is not concerned with peer acceptance. This implies that every aspect of the individual is significant in some period of life. The emotional, social, and intellectual aspects of man are but a few of the dimensions of his total personality which are important in all but the earliest levels of development.

The general weakness of the developmental-level approach is much the same as the strength of the dimensional approach: continuity with respect to some aspect of the individual. Conversely, the weakness of the dimensional approach is the basic strength of the developmental-level approach: maintaining the unity and totality of the individual at any one time. In order to capitalize somewhat on the advantages of the dimensional approach, Sections I and II are devoted to an overall discussion of major aspects of development. An examination of the distinguishable developmental levels constitutes the remaining sections of the book.

DEVELOPMENTAL STAGES

In dividing the human life span into various stages, a number of problems are encountered. First, most stages are not completely distinct from the phases which precede or follow them. Thus, the individual does not suddenly enter adolescence or adulthood; he gradually acquires those characteristics which typify a new phase of development. Second, the definition of what constitutes a level of development raises a major problem. Should infancy, for example, be defined in terms of chronological age, of bodily growth, or of behavioral pattern? Moreover, what criteria may be used to estimate growth patterns? A study by H. B. English [4] shows that on these points even specialists within the field of developmental psychology do not fully agree.

In the present survey of human development, an attempt has been made to define each stage in terms of fundamental behavioral patterns and traits. In other words, the basis of the division of the life span into developmental levels is given in terms of significant trends or achievements which constitute the basic pattern of human life at each given stage. Although general age limits may be applied to each of these stages, it should always be borne in mind that such limits are only ap-

proximations of the normal course of development: one person may pass into the next developmental period months or even years before another person of the same chronological age. It should also be recognized that considerable differences exist between varying group cultures: developmental tasks, average longevity, and social pressures all vary. The present investigation concerns primarily the individual in the American culture.

Briefly and in broad terms, the life span may be divided into the following developmental levels:

1. *Prenatal period.* The time during which major bodily structures and functions are established to form a biological basis for psychological development.

2. *Neonatal period.* The first weeks of life, typically the first three to four weeks, during which the newborn infant, or neonate, must make radical adjustments to the demands of the outside world.

3. *Early infancy.* Those months wherein the individual acquires the first important means of enlarging his world—that is, develops from a passively receptive individual into a person who, by means of general motility and understanding, is capable of actively seeking new experiences and relationships in his environment.

4. *Late infancy.* The period during which the human being enlarges his world still further by the acquisition of a major mode of communication, verbal language.

5. *Early childhood.* The preschool years, during which the child improves upon previously acquired skills and abilities and develops a concept of himself, but remains largely restricted to the family environment.

6. *Middle childhood.* The first years of school, during which considerable social and intellectual changes occur in part as a result of the child's interaction with persons outside the home.

7. *Late childhood.* The years preceding the onset of puberty, during which the child rapidly develops a strong sense of personal identity and a firm relationship to a peer society.

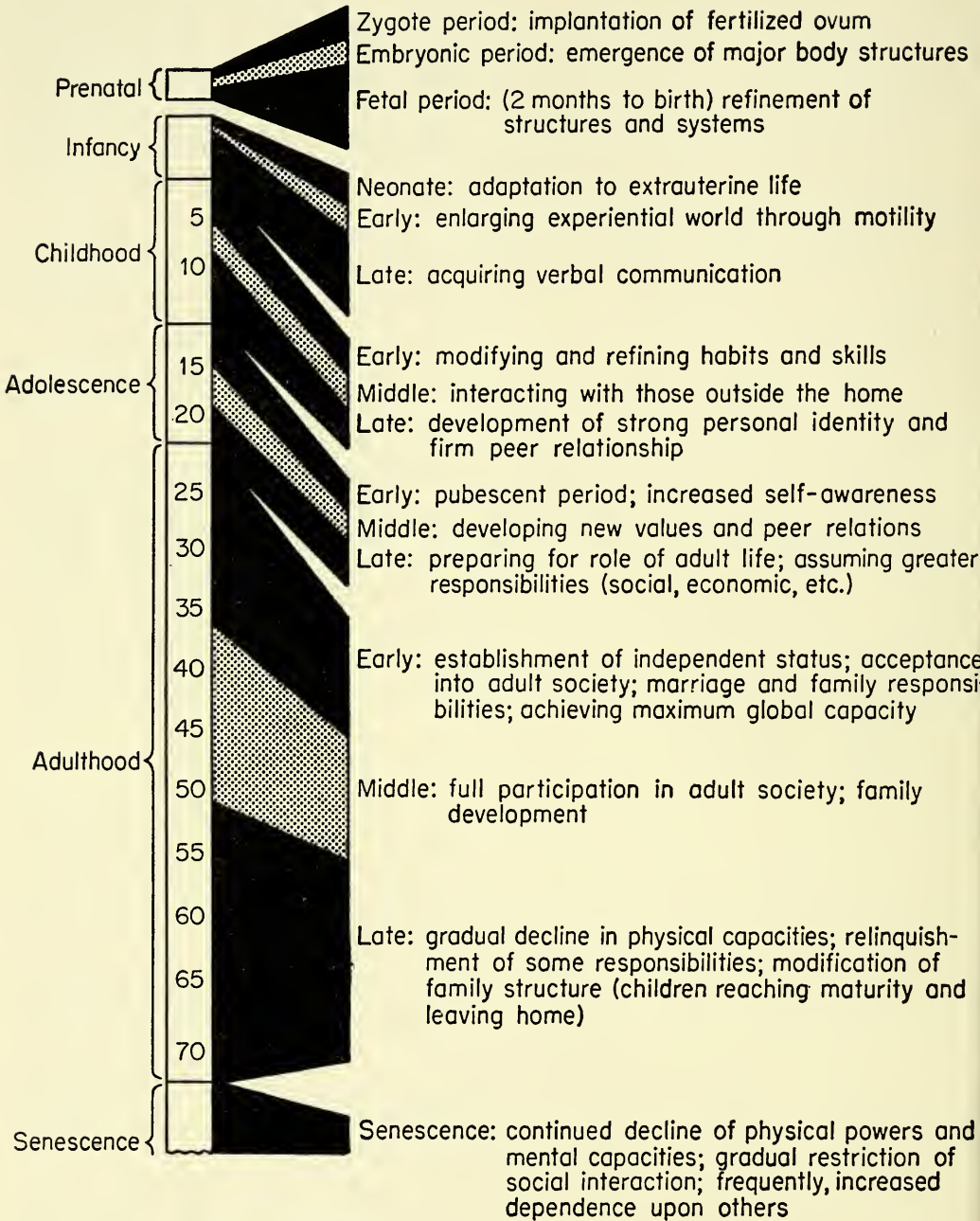
8. *Puberty.* The period during which rapid sexual, emotional, and social changes occur. A period also marked by increased self-awareness, ambivalence in motivation, and personal problems.

9. *Adolescence.* The years during which the individual matures and somewhat stabilizes his system of values and interests, preparing for the responsibilities and privileges of adult life.

10. *Early adulthood.* The period in which the individual enters into adult society, usually establishes a family, acquires an occupation, and promotes his self-development.

11. *The middle adult years.* The years of consolidation and evaluation of previous aspirations and achievements. The stage of highest over-all status in adult society.

Figure 1-1. Developmental Phases



12. *Late adult years and senescence.* The period of gradual physical and mental decline, characterized by diminishing participation in society.

QUESTIONS FOR REVIEW

1. What practical values might developmental psychology offer the student, over and above those provided by a knowledge of psychology in general?
2. What advantages and what limitations are found in the two general approaches of developmental psychology?
3. What is the value of establishing developmental norms? What is the danger in applying such norms to specific persons?
4. What difficulties does the investigator encounter in dividing the life span into different segments?
5. In what ways are child psychology and the psychology of adolescence related to developmental psychology?

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Research Methods

UNTIL THE relatively recent rise of empirical science, the basic method of studying human development was to introspect and to retrospect, or casually to examine personal acquaintances. With this as a starting point, one might generalize about what had been observed and speculate on its significance. The dramatic discordance of such "investigations" and their general failure to provide man with a means of improving his lot led to the gradual evolution of modern scientific methods. The men such as Kepler, Galileo, Newton, Comenius, and Wundt, to name but a few, who developed and refined modern techniques, were not necessarily more sincere or more dedicated to truth than those who preceded them; they were better equipped to search out the truth of physical and psychological phenomena [3].

THE SCIENTIFIC METHOD

In what way is the modern scientist better equipped than his predecessors? Is it in the complex devices and elaborate apparatus that the layman typically regards as symbolic of the scientist? Obviously not, inasmuch as these simply represent past scientific and inventive achievements. Rather, the modern scientist's superior equipment is the basic method which he employs, the so-called "scientific method." Despite the fact that eminent scientists have difficulty in agreeing upon exact definitions of "science" and "scientific method," there is general agreement on the procedure and basic concepts involved. The differences of opinion are a result mainly of semantic problems and the degree of generality or specificity sought by various writers.

In very general terms, however, each of the empirical sciences employs the same basic approach in its quest for the solutions to problems in its

area of investigation. Each science has specialized techniques for the phenomena it investigates, but all share essentially the same procedure in arriving at new knowledge. In its basic form the scientific method may be summarized as follows:

First, some definite problem is chosen for investigation. This problem is defined and limited so that an explicit solution may be found. For example, the investigator might be interested in determining whether children raised in an institutional setting differ in their language development from children raised at home. But what is meant by these terms? "Raised at home" sounds simple and clear-cut enough, but is it? Is being raised at home with both parents the same as being raised with only one parent? Is it the same to have the mother at home during the day as to have her working? Any accurate statement of the problem must include a definition of "raised at home." Or again, what is "language development"? Is language developed when the infant first vocalizes, uses a single word meaningfully, uses all the parts of speech, or uses sentences of various types? Obviously the solution to the original problem may well depend upon the way in which the problem is formulated.

Generally the problem is made even more specific by expressing it as a hypothesis. In other words, the investigator makes a calculated guess, based on some facts he has, regarding the phenomenon being investigated. This step, though not absolutely essential, is highly useful in carrying out the remaining steps of the scientific method because it aids the investigator in designing his research and devising methods of evaluating the data which he collects. The task of the scientist now becomes one of evaluating the accuracy of the initial appraisal.

In the second step, seeking a solution to the specific problem or hypothesis, the scientist collects data by making systematic observations. Knowing the type of data which will solve the problem and knowing when, where, and how to collect it, the investigator makes systematic observations and records. Each science, depending upon its particular set of problems, has a group of techniques for collecting data which will solve some of them. In developmental psychology, for example, experimentation, field studies, case studies, and biographical materials are utilized. Certain research techniques and tools are widely used among the various sciences. Some are more or less limited as to the type of problem to which they may be applied. All, however, have the same purpose: the systematic accumulation of precise, reliable, and verifiable data.

In the scientific investigation the general factor (or factors) under consideration is termed the *independent variable*. The event being observed by the scientist is called the *dependent variable*. It is the aim of the investigator to determine whether or not changes in the independent variable are accompanied by changes in the dependent variable. Natu-

rally any extraneous factors which might influence the dependent variable must be taken into consideration. Wherever possible, such factors are controlled, or at least carefully observed, so that their influence will not distort the relationship between the variables.

The third general stage of the scientific method consists of the analysis of the observations. The accumulated data must be made meaningful in terms of the original problem or hypothesis. Typically this involves the application of certain statistical tools. The hypothesis is evaluated in terms of the statistical end results. That is to say, it is asked to what extent the set of data supports or refutes the hypothesis as originally stated. A definite relationship may be established—one beyond reasonable doubt or one leading to the establishment of a principle. It should be noted that the data usually neither prove nor disprove the hypothesis: it always is conceivable that the observed results might have been the product of some unknown factor.

The final step in the scientific method is the formulation of generalizations based upon the hypothesis and other sources of information. To the extent that other situations are comparable or similar to the conditions of the current investigation, similar results can reasonably be expected from other studies. Moreover, in view of these generalizations and in view of theories proposed in other studies, new hypotheses may be formulated. Thus, the basis for additional research frequently arises from the facts established in a previous study. Actually, each time some new relationship or lack of a relationship is determined, new problems arise which require further investigation. As a consequence, knowledge accumulates but scientific truth is never fully realized.

It will be noted from the preceding that the basic reasoning process involved in scientific study is inductive—going from specific observations to broad generalizations. Yet deductive reasoning also is an integral part of science. Thus, the scientist infers specific relationships from sets of broad truths.

GENERAL APPROACHES TO DEVELOPMENTAL INVESTIGATION

In addition to the various tools employed in studying the development of the human being, there are a number of general methods available to the researcher. Each method, as well as each tool, has certain advantages and limitations. For certain problems, one may be more valuable, or at least more practical, than another.

Cross-sectional approach. In the very broadest terms, two basic approaches are available to the investigator. The first of these, the most widely employed, is the cross-sectional method. In this, samples of individuals representing different age or developmental levels are studied

and compared. Gradual changes in intellectual ability, for example, might be investigated by comparing the performance of representative samples of one-year-olds, two-year-olds, and so on. In other words, each sample represents a given age or developmental stage, with the differences between the samples, if statistically significant, being attributed to the difference between the age or developmental levels.

Assuming that truly representative samples are employed (an assumption made in every scientific investigation), the cross-sectional method is highly serviceable. Within a relatively short period of time all observations necessary for a particular study can be made. Hypothetically every person within a city or state, even in the country or entire world, could be studied in a single day. By classifying and evaluating such data, developmental changes throughout the entire life span could be charted.

Despite the practical usefulness of the cross-sectional method, it has certain shortcomings. The totality and individuality of the person is usually lost. This criticism may, of course, be made of any scientific study which isolates a single characteristic or group of characteristics from the total individual. Also inherent in this method is the loss of developmental continuity. Depending upon the rate of development and upon the gap between the representative age or developmental levels, there will necessarily be differences in the accuracy of the total picture. That is to say, if sufficiently divergent levels of age or development are compared, important intermediate stages may be missed. The one-year-old, for example, is typically quite accepting of those about him; the two-year-old is rebellious and negativistic; and the four-year-old again tends to be quite accepting. Were only the one- and four-year-old levels considered, no great developmental changes would be indicated in regard to this factor.

Longitudinal method. In contrast to the cross-sectional procedure, the longitudinal method studies the same persons over a period of time, noting the changes that occur during that span. As in the previous method, the scope of the longitudinal study may vary considerably, treating something very limited, such as changes in height, or rather broad dimensions of personality.

One advantage the longitudinal method has over the cross-sectional approach is that one possible source of sampling error is eliminated. When different samples are employed to represent different age levels, it is assumed that the groups are truly representative. When comparing one-year-olds with two-year-olds, for example, it is assumed that in a year the first group will closely resemble the group that is now two years of age. It is always conceivable that such will not be the case. With the longitudinal method, however, this particular sampling problem is not present.

In the case of longitudinal studies, a definite problem arises. The length of time for conducting such an investigation obviously can be no shorter than the period of life being considered. Unless a succession of observers is employed, therefore, the period of life under study necessarily is somewhat limited. Even when a relatively long-term investigation is feasible, the problem of maintaining contact with the participating subjects is a major one, with some persons leaving the community, others losing interest in the project, and still others dying.

Isolation method. A distinct application of the experimental technique to longitudinal studies is illustrated by the isolation method. In this, one group of subjects is offered the opportunity to experience some situation. A second group is not afforded the same opportunity. After a period of time, the two groups are compared in order to determine the role or influence of the experience in human development.

In many studies this procedure is carried one step further. The subjects not afforded the learning, the so-called "control" subjects, are later offered it in order to determine how quickly, if at all, they will match the first group of subjects. Thus, the first group, after its learning period, may demonstrate a marked advantage over the control group. But the control group may require far less training in order to reach the same degree of achievement. In such a case, it may reasonably be inferred that some factor other than learning was involved in attaining proficiency. This factor, maturation, is an important developmental concept which will be considered in further detail in the next chapter.

Although the isolation method in its purest form is a strictly experimental approach wherein the amount of learning opportunity is controlled by the investigator, it may be extended to encompass large areas. In some cultures, for example, certain conditions are prevalent, whereas in other cultures they are largely or totally absent. The latter, therefore, may be considered an isolated or control group. All other things being equal, the differences in behavioral or personality characteristics may be attributed to the discrepancies in cultural environments. A state of "all other things being equal" can never be perfectly achieved because of the tremendous complexity of any cultural group. Yet in general terms at least, much useful information regarding human development can be obtained in this manner.

Despite the evident advantage of the isolation method for comparing the "have's" and "have-not's," it has distinct limitations. Long-term studies certainly become impractical because of possible irreparable damage that might be done to members of one of the groups. Moreover, the number of influences that might be isolated diminishes rapidly as the person grows older: everyday living furnishes too many opportunities for individuals to develop their potentialities. Consequently, use of this

method has typically been restricted to rather basic processes occurring in the early years of life.

Co-twin method. Often employed in conjunction with the isolation method, the co-twin method clearly illustrates the investigator's attempt to control as many significant factors as possible in determining the relationship between variables. Because of the intimate relationship between hereditary endowment and many psychological processes, this method seeks to control the influence of heredity to the greatest possible extent. Identical twins, persons who have developed from the same fertilized germ cell and therefore possess virtually the same hereditary make-up, are used as subjects. In an experimental isolation study, one twin is exposed to the experimental situation and the other twin is not. Hence, both environmental and hereditary factors are maximally controlled.

Although this method has proved very valuable in determining the relative importance of heredity and environment in the development of certain behavioral traits and abilities, its application is somewhat limited. Representing the closest approximation of the ideal experimental procedure, it has the drawback of sampling limitation: too few sets of identical twins of the same age or developmental level are readily available to the investigator. In addition, when older twins are used, another problem presents itself: the possible influence of different experiential backgrounds, personal habits and traits, and volitional and other factors. As in so many cases, the ideal becomes somewhat impractical.

Still another use of the co-twin method is available to the researcher. Identical twins may again be employed as subjects, but with no attempt to control their environment. Rather, the twins are reared in distinctive environmental settings, say in separate foster homes; or, as adults, they are exposed to decidedly different influences. They then may be compared with respect to some specific trait, ability, or mental state. If, then, the twins manifest significantly greater similarity than persons who have comparable environments but lack this hereditary resemblance, it must be concluded that the greater similarity of the twins is due to some hereditary factor. It might be noted in passing that research along this line has clearly demonstrated the important role of heredity in determining intellectual capacity. Intensive research is currently being pursued to determine what, if any, hereditary basis exists for various types of personality and mental disorders.

SCIENTIFIC TECHNIQUES

As indicated in the second step of the scientific method, one major characteristic of empirical science is the use of systematic observation. No one technique of observing, however, is applicable to all scientific

problems. Certain procedures or tools are especially suitable for testing one hypothesis but are impossible or impractical for testing another. In considering the following tools, widely employed in developmental studies, several points must be borne in mind. First, such tools are not limited to developmental psychology or even to the science of psychology. Second, different tools may often be applied to the same problem. Finally, each represents a procedure possessing a multitude of possible variations.

Experimentation. By far the most highly refined and most desirable tool is experimentation. Basically this consists of the systematic varying of some factor or group of factors and the observation of what then occurs. The experimenter seeks to determine whether a change in one is accompanied by a change in the other. By way of simple illustration, let us consider an experiment in reaction time. An individual is instructed by the experimenter to press a certain button as quickly as he can, on hearing a certain sound or seeing a light signal. Each time either stimulus is presented a timing device records exactly how long it takes the subject to respond. Other variables that might influence reaction time are held constant, or at least observed so that their influences may be evaluated. By repeated measurements the experimenter is able to determine if there is a relationship between the independent variable and the dependent variable, between the type of stimulus and the speed of response.

In the foregoing experiment only one factor was altered and only one response observed. This, of course, represents the simplest type of experiment. Yet it may have value in a developmental study if this experiment is repeated from month to month or from year to year and the results are compared. More complex experiments involve the simultaneous manipulation of a number of factors so that the possible interacting effect of such variables may be ascertained. It should be noted that the relationship between the experimentally manipulated variable and the observed phenomenon is not necessarily a cause-effect relationship. In the case of experimental studies, as with all other empirical investigations, such a relationship often merely signifies that the variables are mutually related to some known or unknown factors.

Despite the fact that experimentation is the most precise and most widely employed method in psychology and most other sciences, it is not without its limitations. Many problems cannot be attacked experimentally for practical, ethical, or other reasons. For example, the influence on human development of some factor suspected to be seriously detrimental cannot be evaluated experimentally, particularly if the introduction of such a factor would be for a prolonged period of time or might otherwise lead to a permanent change within the human subject.

Case study. Another exceedingly valuable technique for gaining information regarding human development is the case-study method. This

tool, like the experimental method, embraces a wide variety of specialized investigations. Fundamentally, it consists in obtaining information regarding an individual's past history and relating this to his present personality or behavioral characteristics. If, in comparing the records of a sufficiently large sample of subjects, certain consistent past events are found to precede a particular mode of behavior, a relationship may be inferred.

Many specialized procedures may be utilized in establishing an individual's present level of development or mode of behavior. Similarly, many procedures may be employed in the acquisition of pertinent data concerning the person's history. In terms of the present, for example, observed behavior, standardized tests, or personal interviews might be used. In terms of the past, personal interviews with the individual or with those having information about the individual, medical and school records, and other sources might be employed. The method of collecting significant data naturally depends in large part upon the particular problem being investigated.

Unlike the experimental method but similar to the remaining tools, the case study investigates the individual under relatively normal conditions. It considers the person as he is and as he was, seeking to trace the relationship between the present and the past. Such a procedure has both advantages and limitations. On one hand, it avoids the pitfall that might be encountered by the introduction of an artificial situation. On the other hand, there is always the danger that among the myriad factors influencing human development some important factor may be overlooked or, conversely, emphasized to the relative exclusion of others. The more complex the form of behavior being examined, the more critical this problem becomes. From the foregoing it should be quite clear that the various tools of scientific investigation must be used to supplement each other in the psychologist's quest for greater knowledge and understanding of the subjects under study.

One additional point concerning the case-study technique should be noted. For the most part, case studies are concerned with persons who are abnormal or disturbed in some way. Inasmuch as such samples are not representative of the general population, great care must be exercised in applying any generalizations to the normal population. Yet, because the person who has failed to adjust adequately often represents an exaggerated picture of basically normal processes or phenomena, case studies of such individuals frequently advance the understanding of normal development and adjustment, and occasionally they point the way to further research.

Field study. A third general tool employed in developmental investigations consists in acquiring specific information from one or more samples of the population. As in the case study, no attempt is made to

control the situation giving rise to the observed phenomenon. The observations are related simply to the age level, sex, social relationships, or some group of characteristics of the persons or populations studied. For example, the question of how occupational aspirations of high school students compare with the available positions might be the subject of investigation. By counting the frequency of expressed preferences among high school students and by computing the relative frequency of persons gainfully employed in such fields, it is possible to estimate how realistic are the aspirations of adolescents [4].

As indicated earlier, many specialized procedures may be employed in making actual observations. In the case of field studies, such techniques as questionnaires, interviews, tests, and time-and-behavior sampling may be employed. Like the other techniques employed in developmental studies, field studies have certain inherent assets and limitations. They share with the case study the advantages and disadvantages of investigating the individual under everyday circumstances. They also have the very practical advantage of enabling the research worker to amass data from a large group of subjects within a relatively short time. On the other hand, the amount of data obtained from each person is likely to be somewhat limited: important factors within an individual's past experience may be overlooked. Consequently, unless suitable precautions are taken, the more complex the phenomenon being studied, the more likely it is that some important factor may be missed.

Biographic tools. Biographies, autobiographies, personal memoirs, diaries, and similar literary contributions constitute the last general technique in the study of human development. By noting the basic similarities and the differences in recorded life histories, much useful information can be accumulated. Many important aspects of behavior and personality lend themselves very well to this type of study. Changes in the intensity of religious conviction, the unfolding of creative ability, and modifications of the self-concept are but three examples of problems which can be studied effectively by this technique.

Such biographic studies possess a number of unfortunate limitations. The accuracy of the original author is one. For example, when various biographies are compared, great discrepancies are sometimes found in the treatment of the same person, particularly in terms of personal dynamics and motivation. Owing to the limitations of memory and possible misinterpretations of one's own motivating forces, autobiographies are also often subject to considerable error. But assuming that a set of such writings is quite accurate, there still is the practical problem of obtaining comparable material. What is considered important by one author frequently is not even treated by another. Finally, the subjects of such literary works are, for the most part, not truly representative of the general

population. How many "average men," for example, publish diaries, write autobiographies, or have their biographies written? This last limitation may, however, be converted into an advantage: the study of those factors and events which have influenced men of outstanding achievement.

QUESTIONS FOR REVIEW

1. Indicate the basic steps in the application of the scientific method.
2. Distinguish between the inductive and the deductive approach in scientific study.
3. In what way is the case-study technique similar to the longitudinal method? In what way do they differ?
4. In what way is the field-study procedure similar to the cross-sectional method? In what way do they differ?
5. What is the distinction between the cross-sectional method and the longitudinal approach?
6. Why should the investigator of human behavior employ several methods of study rather than just one?

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Principles of Human Development

THIS CHAPTER attempts to explain briefly the basic processes of human development. It will assess the role and importance of (1) growth processes and levels, (2) the major concepts of this branch of science, and (3) the principles of growth and behavior in the total life span.

GROWTH PROCESSES

Human development is principally marked by three interrelated processes. They are differentiation, integration, and learning. Differentiation comes about by the multiplication of cells and by the gradual development of distinguishable tissues. These are first seen in the *endodermic*, *mesodermic*, and *ectodermic* layers. The outermost layer, called the ectoderm, eventually produces the outer layer of the skin, hair, nails, skin glands, sensory cells, and the entire nervous system of the body. The middle layer, the mesoderm, produces the deeper skin layers, muscle cells, and the circulatory and excretory organs of the body. Finally, the endoderm produces the lining of the entire digestive system, the lungs, liver, pancreas, and many of the glands. Thus, various organs emerge within each layer of tissue and combine into a variety of systems, such as the central nervous system and the circulatory, glandular, digestive, and excretory systems. These and related structural developments are presented in Chapter 6.

Physiological growth furnishes a basis for the formation of receptor, conductor, and effector systems, which help various motivational, behavioral, and personality variables to emerge and function. The human

mind, by means of mechanisms of the central nervous system, unifies the specialized systems and organs into a substantially interacting configuration. The mind also serves itself by gratifying needs and by progressing toward a fuller self-realization in accordance with the demands of organism-environment interaction. Postnatal differentiation and integration are continually supported by learning experiences. Learning is a major way of acquiring a reservoir of abilities and skills needed for adaptation to changing circumstances and culture.

A frequent comparative approach to identifying the level of growth has been to measure various factors of development and to quantify them in age units [1]. Thus, group growth curves are constructed to show and to be compared with individual intelligence (MA, mental age), vital capacity, (VA, vital capacity age), height (HA, height age), weight (WA, weight age), ossification (CA, carpal age), and dentition (DA, dental age). In relation to major abilities, achievement age is usually determined and its quotient (AQ) used to identify the individual level of performance. All these measures may be summarized into organismic age (OA) and its quotient (OQ). It is conceivable that a personality age (PA) and its quotient (PQ) will be determined when comprehensive personality tests are developed and validated.

FACTORS IN SELF-REALIZATION

Self-realization may be seen as a lifelong process of developing and utilizing one's own capacities and potentialities within the promoting and restricting matrix of the forces of the environment and culture. It essentially depends on three principal factors: (1) heredity, (2) environment, and (3) self-direction.

Heredity, determined through the process of chromosome and gene combination, is unique for each human individual and remains a comparatively stable factor throughout life. In the early phases of life, heredity initiates structural growth, mental development, and personality organization. It also sets the upper limits of all major maturational processes. But the actual level of development at any stage of life depends to a considerable extent on the given environment.

Environment includes many internal and external factors which affect the individual. An individual's social environment gratifies his biological needs and provides a variety of stimuli for mental education and personality formation. Frequent examples of appropriate ethical and moral behavior by parents and members of reference groups facilitate a higher level of self-realization and personal integration. In reverse, a lack of variety of mature exemplary behavior and of moral education interferes with the formation of socially desirable attitudes, predisposing

the individual to the acquisition of undesirable and maladjustive habits and attitudes. The developmental roles of heredity and of some selected environmental factors will be appraised in the next chapter.

As the child grows and matures, he learns to become more selective about what he takes in. Self-direction begins when the child expands his understanding to a level at which he is able to make inferences and form his estimations and judgments. The child's self-reliance becomes an ever-present factor in his relationships, interests, and activities. By thinking conceptually and symbolically, the child shows that he is becoming less dependent on hereditary disposition and social guidance. Another evidence of his new freedom is ability to choose and determine his own activities. Thus, beginning with the preschool age, the child is able to concentrate his energies in carrying out his reasoned decisions and aspirations. Chapter 4 will present a detailed analysis of these factors.

As a result of several empirical and theoretical studies of growth, maturation, and the "ground plan" of life, Charlotte Buhler [7] distinguishes four equally basic tendencies of life, viz., need satisfaction, expansive creativity, order upholding, and adaptive self-limitation. These tendencies are active in varying degrees, and each of them becomes predominant at different levels of human development. The ultimate goal is seen as self-fulfillment based upon optimal need satisfaction and creative expansion, both achieved while maintaining internal order and adapting to limiting situations.

BASIC CONCEPTS

Development is the process by which an individual's potentialities unfold and appear as new abilities and skills, qualities and characteristics. In its over-all aspects, development involves growth and reaching higher degrees of differentiation, complexity, and efficiency of the human organism, and deterioration of its tissues and structural systems, as well as the maturation and decline of their functional and integrative capacities. Development implies a progressive change of an individual's pattern of reaction. Growth chiefly refers to the increment of the bodily tissues, organs, and structures. Maturation, in turn, implies that the person's functional abilities emerge and gradually progress toward a full realization. Deterioration, on the other hand, is an impairment of tissue or organ and a decline of function arising from age, pathology, or other factors.

No attempt will be made here to proceed with the analysis of other terms pertinent to developmental psychology. Many of them will be explained when they first appear in the text. Whenever a further clari-

fication of ideas about various concepts is needed, it is suggested that the student make use of the Glossary at the end of the volume. Further information on psychological and related terms may be found in *A Comprehensive Dictionary of Psychological and Psychoanalytical Terms* by Horace B. English and Ava C. English, published by Longmans in 1958, and *Encyclopedia of Educational Research*, third edition, edited by Chester W. Harris and published by Macmillan in 1960.

ANALYSIS OF SPECIFIC PRINCIPLES

The God-given course of human development may be partially explained by several major principles underlying growth, maturation, motivation, and behavior.

The growth pattern follows a genetic sequence. The physiological development of the human being manifests itself in a universal and orderly process of structural change marked by two interrelated kinds of sequence: (1) the *cephalocaudal* and (2) the *proximodistal*.

Cephalocaudal sequence, as the etymology of the word indicates, is the progression of differentiation and structural maturation from the head, through the trunk, to the extremities. This means that the infant's brain and head grow faster and reach maturity earlier than the visceral organs do. At birth the head makes up over 20 per cent of body length; at maturity the ratio decreases and the head area claims only 8 per cent of body length. The extremities are the last to mature. In terms of morphological changes, the later stages of life are marked by the same order. Thus, the brain deteriorates and loses its weight at a faster rate than visceral organs do. The extremities seem to produce the least deterioration or pathology in late stages of life.

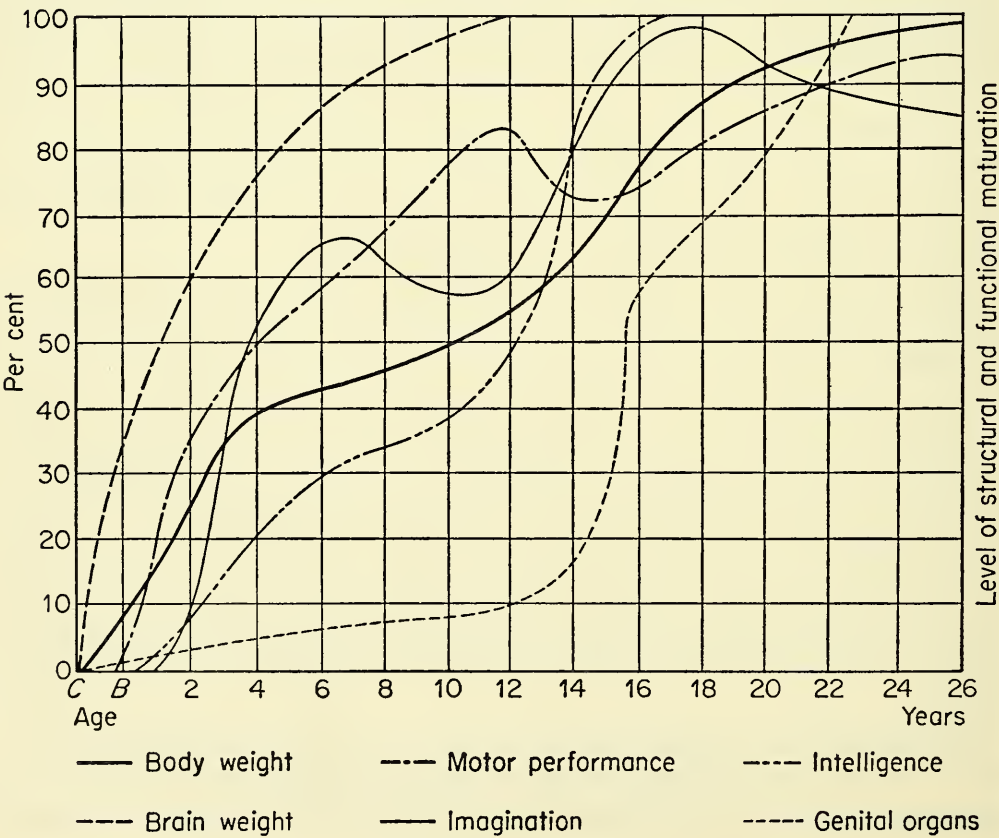
The proximodistal sequence merely amplifies the cephalocaudal. The growth of tissue and structure which is closer to the center of the body is a little faster than the maturation of tissues and systems which are located in its periphery. First, whole arm or leg movements are seen, then elbow and knee joint control, and finally the specialized reaching movements of the fingers or coordinated use of the legs for walking or jumping. In old age, therefore, it is not the skin or skin-related layers which deteriorate and produce trouble but the bones and, especially, other deeply localized structures. These ache more often and become more easily damaged as a result of illness, infection, toxins, and many other factors. It is not the skull which deteriorates but the brain inside of it [9].

All individuals are different. Though to an inexperienced eye some individuals, especially identical twins, may appear much alike if not the same, careful observation always reveals that no two persons are identi-

cal in any of their observable aspects, as for example, fingerprints and handwriting. Because of his rate of maturation and individual experiences, each human being is continuously changing in his own way, even when some appearance and behavior traits seem to remain constant. Developmental resources and experiential qualities also differ from person to person as counselors and psychotherapists report. Nancy Bayley's study [6] on individual patterns of development presents evidence and illustrations of differences in physical and related rates of maturation. Parents seem to forget this basic principle when they expect similar rates of development in their own children. The tendency to generalize about the development of representatives of various groups, races, and nations is also great indeed. Many stereotypes are used to represent millions of individuals who are merely similar in some features and differ substantially in many others.

Various systems and functions of the organism and personality have different developmental rates and phases. All systems and organs of the human body have individual cyclic and asynchronous rates of structural and functional development. The brain, for example, grows at a very rapid rate during the prenatal and early postnatal stages and

Figure 3-1. Curves of Growth of Various Factors of Development



reaches its approximately full weight and structural differentiation several years before puberty changes commence. In fact, at two years of age its weight approaches 80 per cent of its adult weight. On the other hand, during the early years of life there is only very limited increment of the genital organs and system. At approximately twelve years of age this system has about 10 per cent of its mature weight, since its major developments occur at the stage of puberty. Because of this inconsistency of structural growth, unevenness and temporary imbalances in biochemical controls are bound to occur during the phases of pronounced growth, e.g., infancy and pubescence. Generally, fast growth will cause repercussions in health and personality. The implication for learning and performance is obvious if parents and teachers are clear about which abilities and skills are involved in the production of a particular behavior. Various bodily systems and mental functions also have different rates of deterioration. Within the glandular system, for instance, the thymus gland begins to decrease its function and structurally shrinks in the advanced years of childhood, while the sexual glands deteriorate functionally in the forties in women and about two decades later in men. The other endocrine glands maintain their functional capacity as long as life is continued.

Behavioral activities are largely directed by functional capacities and the fundamental needs of life. Fundamental needs are generated by the total human nature, especially in its biological and psychosocial aspects and processes. The manifestations of these needs appear at the earliest stages of development and never do substantially subside within the cycle of life. First, there is the need of a constant internal environment, characterized by a limited variability in temperature, metabolic and catabolic processes, and blood pressure [8, 10, 11]. Then, energy exchange through the provision of nutrients in early life promotes readiness for engaging in complex activities later. Consumption of energy is the immediate cause of various vegetative processes, such as digestion, circulation, elimination, glandular productivity, and coordination through the central nervous system. In so far as these needs are gratified, the individual is disposed toward higher levels of activity and aspires beyond valences and values dictated by the fundamental needs and their derivatives.

The moral and spiritual nature generates needs which often gain insufficient autonomy to exercise dominance over biogenetic needs. Deprivation of the sources of energy produces tension and drive intensity which may lead to lack of equilibrium and interference with growth, but as soon as such a condition is alleviated by supply, the organism tends to regain its functional complexity and resumes its former pattern of striving toward its goals. When pathological changes occur, they

may disrupt the pattern of both structural development and personality organization.

Unfolding abilities and skills are spontaneously expressed. There resides in the infant, child, adolescent, and adult a powerful impulse to grow and mature, to unfold new abilities and to improve them by practice and revision. Most of the capacities and potentialities inherent in the individual nature materialize or become activated in the first two decades of life. Endowments and abilities are to a considerable degree irrepressible, yet activation of some of them may leave no room for the realization of related or antagonistic potentialities.

The tendency toward optimum functioning is vividly exemplified at the early stages of postnatal life. As soon as the infant develops a new motor skill or language ability, he experiences a powerful impulse to practice it. When babbling or creeping takes a new form, exercises may absorb the infant for hours. Repeatedly he turns back to their reproduction and seemingly derives considerable enjoyment from it. Parental patience is often challenged by the child's continual repetitious questioning. Apparently the child wants to get a particular idea deep into his mind before he feels ready to take the next step along the same line of growth. As soon as the child functions well within a dimension of experience, the foundation is laid for a further differentiation, and soon he is ready to discard the underlying abilities for the sake of the more advanced. Thus, creeping is discarded as soon as walking is well established at about the fifteen-month level, and "baby talk" disappears in the latter part of the fourth year when the child advances in speech efficiency. Curiosity and desire for exploration, for new experiences, and for progress in the application of abilities and skills extend far into the advanced stages of life and usually do not fully disappear in old age. Certain restriction of activities and disappearance of interest in old age are often due to the general decrease of energy and ability, rather than to the lack of impetus to apply what has been developed during the preceding stages of life and is still functionally available.

Behavioral tendencies follow the maturational sequence. The observation of many growing individuals tends to reveal a certain order and regularity in their changes of behavior. First, certain traits, habits, and attitudes appear, then increase in the complexity of their application, and finally have repercussions on self-expression and life pattern. Such differentiation of mental functions and behavior may be interpreted as a sequence from general to specific, from concrete to abstract, from non-selective to extremely selective, from tangible to intangible, and finally from known to unknown. Thus, the total body of the infant is in motion before he is able to produce any qualifiable pattern of motion. The baby accumulates a substantial repertoire of sounds before he is able to

articulate any of them. He may use "bird" for all creatures having wing-like extensions before he learns to call each winged object by its proper name. He learns that some objects are at times "hot" long before he can explain the concept of heat. Scribbling turns into drawing of recognizable objects, and drawing is advanced to detailed portrayal of reality. His behavior can be classified as solitary or self-centered before it becomes "social" and "altruistic." Understanding of physics may be followed by interest in metaphysics.

First he perceives what is tangible; much later he begins to understand the more abstract and less tangible aspects of reality. First he knows one song and uses it alone; later he gradually increases his repertoire of songs and melodies and begins to use them with more discretion. These examples show how differential responsiveness expands as individual experience accumulates and that specific responses are more frequent at later stages of maturity. Social or cultural sophistication is impossible in preschool years but is proper at late adolescence. A child and a young adolescent have limits in adjusting themselves to the complexity of modern urban life. They may frequently need parental protection, and will profit from psychologically oriented guidance, while an adult under the same circumstances may adjust better because his resourcefulness has been amplified through previous experiences.

Each phase of development has characteristic traits and features. This principle is explained or illustrated in many sections of the book. If one observes carefully for some time the play activity of an infant and then that of a preschool child, he will be impressed by differences in approach, complexity, duration, and other formal elements of play, despite the fact that the play material and situation may be practically the same. If two other individuals, one an infant and the other a child, use playthings in the same manner and engage in the same activities, one wonders about the child's level of development. The question is this: Is the child acting normally for his level of development? The little evidence of pattern and complexity in play, the "baby talk," and the clumsiness in psychomotor behavior of the child lead the trained observer to infer that his level of maturity is approximately the same as the infant's. Both would seem to be in the same phase of development, with this difference: the child is retarded, the infant mature for his age. In the case of severe retardation it may be expected that the individual will neither reach all advanced developmental levels nor exhibit behavioral complexity typical of the advanced stages of adulthood.

Thorough observation of each phase also seems to indicate that some characteristic traits or forms of adjustment generally classified as "problem behavior" are merely normal and even necessary forms of experimentation leading to more integrative and adjustive behavior patterns in the

advanced level of the same stage. A careful study by Jean W. Macfarlane, Lucille Allen, and Marjorie P. Honzik [12] on behavior problems of normal children presents striking illustrations and table summaries of such undesirable behavior from babyhood to fourteen years of age. Figure 3-2 illustrates changes in temper tantrums from five to fourteen years of age.

The developmental course is continuous. In the acquirement of a new factor, ability, or skill, there are preparational and manifest phases. In teething, for example, the underlying growth of all the first set and most of the permanent set of teeth is already evident at birth by means of the X ray. This is long before they can be "seen" or otherwise acknowledged. Many teeth of the first set are already partly or wholly hardened. Cooing and babbling exercises are recognized as underlying stages of forthcoming speech development. Simple patterns of play are practiced long before complex play activities can be attempted.

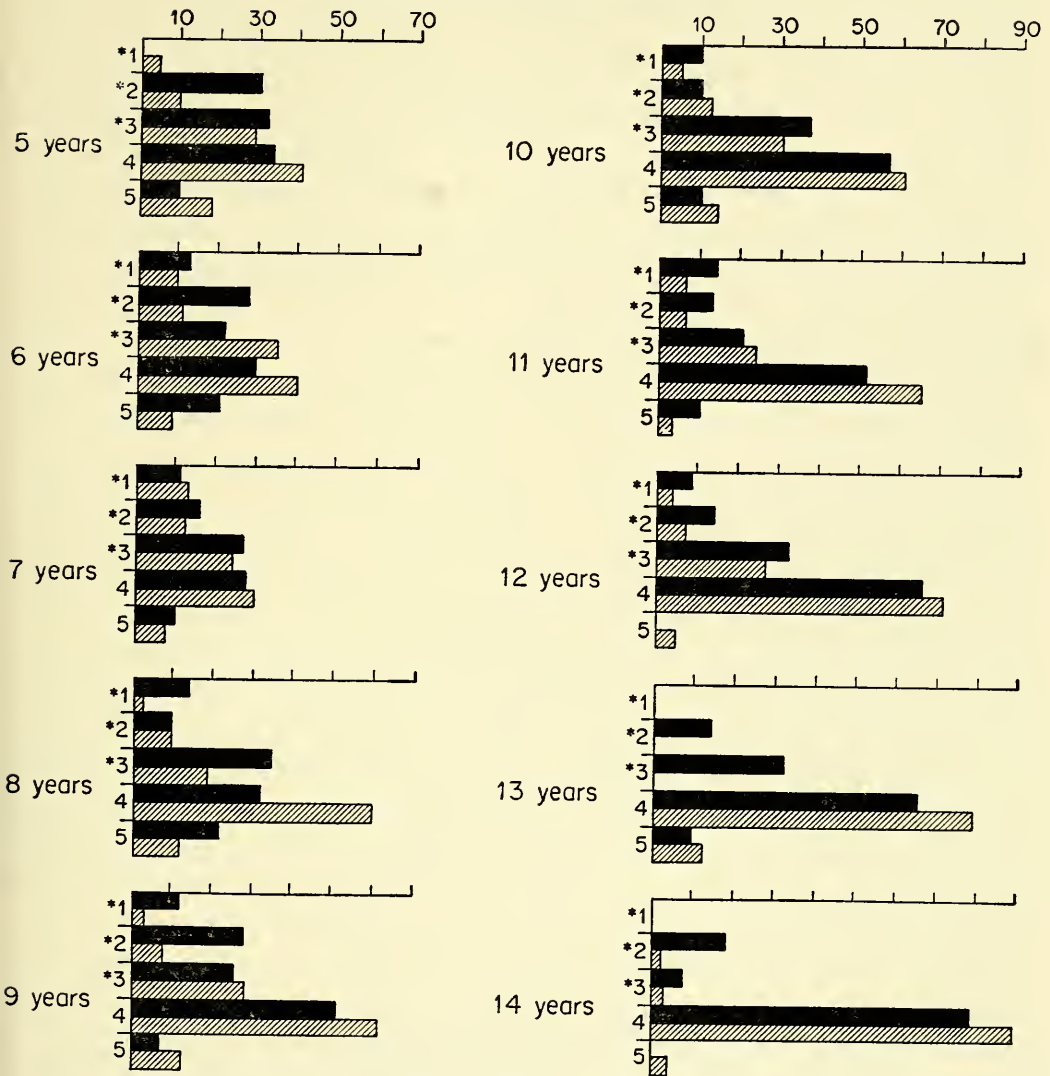
Measurements of specific developments, such as height, vocabulary, or motor performances, however, do not indicate uniformly increasing changes; rather they will show spurts, plateaus, and even regression. During the plateau periods, however, the incubation of previous learning and skills takes place. The earlier developments are integrated into a new pattern, and a readiness for understanding of new horizons is acquired. Thus, development is continuous in its over-all aspects, but rhythmic in terms of specific growth factors.

Through a preparational phase a person becomes well equipped to exhibit an advanced mode of self-expression. At this time a high degree of readiness for the particular learning involved is observed. If learning-eliciting stimuli are absent within one total stage of development, the individual may be deprived of the learning experience. As a result, foundations for the following and more refined levels of development will not be established and any advanced learning of this kind will be curtailed.

Within the dimensions of the human organism and personality, there are many facets and traits to be developed. The growth of each affects the person's total configuration by modifying many of its factors in some way. Therefore, whether it proceeds faster or slower in its particular and over-all aspects, development is a continuous process. It advances in a more or less integrated way, conditioned by the interaction of biochemical, psychological, and environmental factors.

Human life is phasic. Rate, cycle, and rhythm of many intraorganic changes and the resulting behavioral manifestations and levels of personality integration enable psychologists to distinguish transitional from the more stable phases of human development and decline. More refined psychoanalytic and clinical studies have identified some of the

Figure 3-2. Temper Tantrums



Distributions of codings
 ■ Boys ▨ Girls

Control group, $N=352$

Coding:

- *1 Severe explosions three or more times a week or daily screaming
- *2 Occasional severe explosions or frequent screaming
- *3 Infrequent severe explosions or frequent mild outbursts of temper
- 4 Occasional mild temper tantrums
- 5 Infrequent fretting; anger reaction practically nonexistent

*Considered problems

(Jean W. Macfarlane *et al.* *A Developmental Study of the Behavior Problems of Normal Children between Twenty-one Months and Fourteen Years*. P. 55. Berkeley, Calif.: University of California Press, 1954.)

more accurate criteria of various phases. Genetic investigations of large groups of individuals at various ages have substantiated this phasic approach to developmental psychology. Frequent use of such terms as "retarded," "infantile," "pubescent," and "immature" points to identification with a specific level of development as a frame of reference. The assumption may be made that each phase of development has a psychology of its own; the infant is not a miniature child, and the child is not a miniature adult. Each has specialized traits and qualities peculiar only to his level of development [4, pp. 25-65]. At each phase of life there are specific tasks and hazards, modes of interpretation and choice, which set advantages or limitations for successive phases.

Forthcoming growth and behavior are predictable. Since the developmental course is an orderly sequence in growth, motivation, behavior, and possibly in personality organization, it may be inferred that, if someone is an expert in developmental processes and behavior and is capable of their diagnostic assessment, he can predict or at least estimate the forthcoming steps of growth in terms of motivational structure, achievement, and preferred tendencies of self-expression of a particular individual. If exigencies are considered, psychometric and projective testing and retesting during several years enables the psychologist to estimate with considerable accuracy the present abilities and driving forces; and, since every individual is fairly constant in rate of development, he can predict the further course of growth and maturation. Such prognosis may indicate that one child should be able to do college work because of his superior intelligence, while another child is mentally retarded, and, unless the testing is invalid, will not "catch up" to the average level of performance. A particular adolescent will not continue to be especially interested in music or engineering because he does not possess the aptitude; that is, an underlying capacity which could be developed and would make him successful in the pursuit of his present interests and objectives. Professional individual interviewing and testing make many general predictions sufficiently substantial for practical purposes. A word of caution is needed here: although prognosis, or prediction, is possible, such examination does not and cannot consider all possible factors influencing the behavior of a particular individual. For example, because of a particular person's unique experience, compensative and overcompensative efforts may become so pervasive as to make some further growth possible. Such specific variables cannot be estimated on the basis of objective test data. Furthermore, prediction generally sets upper limits rather than identifies particular future acts of selection. If the individual's intelligence is low, the psychologist is justified in his conclusion that very intelligent performances will not be achieved, but how the individual will utilize his limited intellectual resources cannot, with accuracy, be

predicted. The individuality and the personality of a human being are very complex and too deep to be fully subjected to psychological assessment. As a result, difficulties are bound to arise whenever one attempts to evolve a total growth configuration or to predict or control behavior. Much research is needed to improve the psychological tools and the education of psychologists in order to promote the adequacy of prediction and the efficiency of control for which science is striving.

The individual develops as a unified whole. The levels of biological, psychological, and intellectual growth and integration may differ from person to person, yet there are no individuals whose bodily functions, mental abilities, or personality organization lack unification and some kind of biochemical and behavioral balance at any phase of development. Certain aspects of development may be uneven or to a degree dissociated in exceptional children and mentally disordered individuals. Beyond this lack of balance, a kind of intrinsic wholeness exists whenever the individual is capable of maintaining his life even though this internal unification may not be adequately expressed in behavior.

Some writers associate the phase of puberty with physical and sexual maturation and seem to disregard the spurts of imaginative, intellectual, and emotional development which take place at the same time. Changes in the self-concept and control status and in personality and character at this stage are also frequently not considered. From stage to stage, all factors either change or are affected by other changes in myriad ways. This principle, which indicates the unity of human development, applies to most dimensions of growth.

QUESTIONS FOR REVIEW

1. Analyze the relationship between development, growth, and maturation.
2. What are the principal factors on which self-realization depends?
3. Explain how genetic sequence of growth pattern applies to (a) the early and (b) the late stages of life.
4. Describe concisely the maturation of several bodily systems and mental capacities.
5. What factors contribute to individual differences and how?
6. Indicate the nature of fundamental human needs and explain their role in behavior organization.
7. What measures can be used to predict developmental potentialities? Why is caution necessary in applying them?
8. What are the genetic regularities and sequences facilitating prediction?

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SELECTED FILMS

Act Your Age (13½ min) Coronet, 1949. Pertinent to chap. 1; it also illustrates some principles of chap. 3.

Principles of Development (17 min) McGraw-Hill: Child Development Series, 1950. Enhances understanding of materials in chaps. 3 and 8.

The Steps of Age (25 min) International Film Bureau, 1951. Relevant to chaps. 1, 3, and 23; designed to explain the relationships between young and old people.

Using the Scientific Method (11 min) Coronet, 1952. Research on an everyday problem by scientific techniques and procedure.

All films listed here and in other sections are 16 mm, sound, and black-and-white, unless otherwise noted; rental services are available through the McGraw-Hill Text-Film Department, 330 West 42nd Street, New York 36, New York;

Psychological Cinema Register, Pennsylvania State University, University Park, Pennsylvania; and many other state universities as well as some public libraries.

Additional information may be secured from the following sources:

Antonini, Josephine S. (Ed.) *Educational Film Guide: 1954-1958*. New York: H. W. Wilson, 1958. A catalogue of 6,326 16-mm films. Earlier editions of *Educational Film Guide* and forthcoming annual editions may be consulted, if needed.

Horkheimer, Mary F., and John W. Diffor (Eds.). *Educators Guide to Free Films*. (20th ed.) Randolph, Wis.: Educators Progress Service, 1960. Forthcoming editions may be consulted, if needed.

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Krahn, Frederic A. (Ed.) *Filmstrip Guide*. (3rd ed.) New York: H. W. Wilson, 1954. 5,882 35-mm filmstrips indexed and described.

Horkheimer, Mary F., and John W. Diffor (Eds.). *Educators Guide to Free Filmstrips*. (12th ed.) Randolph, Wis.: Educators Progress Service, 1960.

RESEARCH

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SECTION

II

FUNDAMENTAL INFLUENCES

HUMAN DEVELOPMENT is often viewed as determined or largely affected by such factors as heredity, physical environment, and family. Analysis of the influences of these major forces is supplemented by an examination of such factors as self, school, society, and culture. Furthermore, developmental occurrences per se at each period of life set the stage for later events. For this reason, discussion of physical and mental growth trends, general modes of emotional maturation, and levels of socialization is presented in this section. The role of each major development is interpreted in the light of its repercussions on the total growth and behavior pattern.

Factors Influencing Development and Personality

DEVELOPMENT manifests itself in several major dimensions. *Physiological* growth of the organism is one of them. From an almost microscopic fertilized ovum the complex physiological structure of the organism is developed during the prenatal periods of maturation. Yet the complexity of physiological systems continues to increase in various ways after birth. The following chapter covers the basic trends of physiological growth throughout life, while Chapter 6 analyzes the structural differentiation preceding birth.

Because of restricted environment at the prenatal level of growth, the development of behavior appears to be very limited. Change of environment during the process of birth makes possible individualized expression of various categories of behavior. *Emotional* experience represents a very important division of the behavior-organizing forces. The newborn has a capacity to exhibit emotional behavior, and various emotions appear early in postnatal life. Parental feeling and attitude elicit similar emotions on the part of infant and child. Throughout life emotional interaction is one of the most vivid aspects of human relationship.

Among the other behavior-organizing forces, *intellectual* functions stand out. Most of the organizing forces are observable before the second birthday, yet their development and influence continue to increase for many years. Intellectual abilities are chiefly responsible for the exhibition of purely human behavior, such as speaking, thinking, and creative activities.

Physiological growth and the development of various kinds of behavior depend on heredity, environment, and self-direction. The follow-

ing sections of this chapter are devoted to the identification and clarification of these factors and related influences in terms of their effects on human development.

THE PROCESS OF HEREDITY

Heredity refers to the over-all influences biologically transmitted from parents to offspring. Individual inheritance is determined during the process of fertilization. This unique process is the chance pairing off of chromosome units and genes within the cytoplasm and structure of the ovum when it is penetrated by and fuses with a spermatozoon. Every individual combination of genes is but one of an estimated 16,777,216 pairing arrangements. This makes the heredity of each person practically unique [16].

Usually once during the menstrual cycle ovulation occurs: one ripened ovum is released from the ovary into the Fallopian tube, where conception may take place. Ovulation regularly takes place near the middle of the interval between two menstrual periods. It most frequently occurs from ten to eighteen days after the beginning of a menstrual period, it is estimated; although no time in the cycle is completely safe from the occurrence of ovulation. In other words, there are considerable differences between individuals as well as differences within each individual in the time of ovulation. The ovum, about 0.15 millimeter in diameter, or the size of a printed period, is one of the largest cells in the human organism. A round, clear, shell-like capsule, it contains a yolk which is used for the purpose of its nourishment during its germinal stage of development. The spermatozoon is one of the very minute cells of the body, measuring approximately 0.05 millimeter in diameter. During intercourse the male may release millions of spermatozoa, up to approximately 500 million in each ejaculation. The thin tail of the spermatozoon, which is about ten times the length of the cell body, provides mobility by moving from one side to the other. For about ten days after conception the fertilized ovum, or zygote, drifts along dividing into a cluster of many cells; then it adheres to the uterus wall and the placenta is formed.

The individual's inheritance is determined at the time of conception. Because of its complexity, many aspects of human heredity are not fully understood. It is certain, however, that the fertilized cell contains at least twenty-three pairs of small, threadlike particles called chromosomes, each parent contributing one-half of each pair. Within each of the chromosomes there are thousands of microscopically undetectable particles called genes, which by inference are seen as direct carriers of inheritance. The genes determine such traits as physical structure, eye and hair coloring, blood type, and speed of maturation.

The chromosomes determine whether a child will be male or female. One pair of chromosomes is especially concerned with this matter. Every ovum and about half of the spermatozoa at the time of conception have twenty-three chromosomes, one of which is identified as X chromosome.* In the other half of spermatozoa in place of X chromosome there is one that is different in its structure and smaller in weight. It is referred to as a Y chromosome. Thus, following conception the cell contains 23 pairs of chromosomes, in the case of a female there being two X chromosomes; in the case of a male an X and Y. Statistics indicate that 105 boys are born for each 100 girls.

Two and sometimes more fertilizations may occur at the same time. This leads to a multiple birth of *fraternal twins*. The single fertilized cell may divide into two parts. As a result two individuals referred to as *identical twins* develop. In some respects the division may be imperfect, and the heredity of both individuals will not be exactly the same.

A PERSON'S HERITAGE—A KEY FACTOR IN HUMAN DEVELOPMENT

Genes are usually considered as direct carriers of heredity. The concept of the gene is merely an inferred concept referring to a submicroscopic and unobservable physical unit which in combination with a gene from the other parent determines a specific growth tendency of a trait. Several or many such pairs often participate in determining a single physiological trait. Because the genes from the two parents are affected by possibly five previous generations in the father's and mother's lines and are assorted by principles not yet known, there are no known ways in which heredity can be fully assessed. The great number of combinations possible in the pairing-off process presents another problem in the determination of individual heredity.

Hereditary differences are thus apparently due to (1) variability within the chromosome and gene structure and its potential, and (2) practically unlimited combination possibilities in the process of pairing off among the genes during the process of fertilization. Genes are assumed to set limits on growth and on both the variety and quality of response to internal and external stimuli.

Heredity is not a stable factor as some geneticists tend to believe. The influence of external factors becomes manifest as soon as the placenta is established and the mother's condition is to a degree transmitted somehow to the developing embryo. Hereditary and innate factors play the role of a matrix, upon which various environmental tenden-

* Recent research studies seem to indicate the existence of 23 chromosomes rather than 24 as was believed earlier. Also, it is not as yet fully clear to what degree other chromosomes contribute to the determination of sexual characteristics.

cies act in a stimulating or suppressive fashion to produce results which may not seem to be consistent with original hereditary endowments.

MAJOR ENVIRONMENTAL INFLUENCES

Fundamentally, environmental influences consist of five intimately interacting factors: physical environment, family, school, society, and culture. Each one deserves analysis of its constituent elements and its role in the development of a human being.

Physical environment. The milieu in which a person lives is first of all physical in character. Various physical factors, such as climate or congestion of the home, continually impinge on the person. Physiological growth and health depend in large part on his immediate surroundings. As a result, personal drives and needs are expressed and gratified in various ways which are closely related to physical factors.

Family. As a primary group, the family exercises its influence on each member, especially on young children, in many ways. It provides the basis for close interaction within a particular home environment and atmosphere. Each family is marked by (1) the background of its members, which is in some ways unique, and (2) a number of specific relationships. Within the context of the family each member is placed in a status that has varied effects on him and is affected by family size and pattern. As the family's size increases in mathematical progression, relationships among its members grow in geometrical progression. Figure 4-1 serves to illustrate this kind of extension of intrafamilial relations.

A family group comprises individuals of differing experiential background, sex, and age. Frequently such a group is bound together by intimate relationships marked by kinship, affection, and mutual sharing in activities and interests. The relationships, however, may be marked by an extensive lack of sharing and frequent rivalry and hostility. Theoretically any combination of attitudes and relationships is possible within a family because of the dynamic characteristics of family living. Moreover, family relationships may expand and include other individuals who share the household.

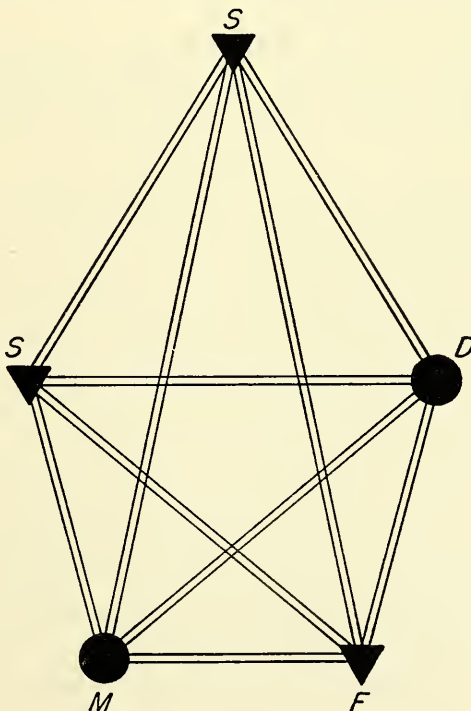
The noted sociologist J. H. S. Bossard [2, p. 57] identifies the family as a "transmitting" rather than a "generating" agency. The members of the family are "constantly contacting, bringing into the home, assessing, and evaluating the outside world. The home is a sort of crossroads, to which the outside world comes constantly." Most experimental departures from home by children and adults alike provide a series of experiences instrumental in social weaning and learning, which, in turn, enrich and build up their personalities. This aspect of family life is comprehensively and dynamically analyzed and illustrated in Evelyn M. Duvall's volume

Family Development [3]. This excellent source stresses developmental tasks and discusses at length patterns of interaction among members of various families.

A factor of great bearing on the life of an infant or child is the presence or absence of siblings. From the very early stages of his life, an infant's personality is in many ways influenced by brothers and sisters; first by the brothers and sisters older than himself, and later by newcomers to the expanding unit of the family. In terms of roles and consequent family relationships, the later newcomers to the family find "pre-empted" positions. As a result, they are moved toward accepting the remaining roles. Among many studies focused on sibling interaction in large families, J. H. S. Bossard and Eleanor S. Boll's *The Large Family System* [10] stands out as a major source of information, especially pertinent to the effects siblings have on each other. This study of sixty-four families identifies eight specialized roles assumed by siblings: the responsible one, the popular one, the socially ambitious one, the studious one, the family isolate, the irresponsible one, the sickly one, and the spoiled one [10, pp. 205-221].

Before infancy expires, a child may acquire a special personality role in the family group. Soon this role will be recognized by his parents, siblings, and the child himself. The process of assuming it has a good deal to do with the innate characteristics and the emerging personality pattern of the child. The role usually involves the child's concept of him-

Figure 4-1. Progression of Family Ties



self. To a large extent it is merely a partially conscious expression of the individual in terms of his adjustment and integration at each level of development. In a small family first identifications with a role are made by parents when they appraise and interpret children's behavior; in a large family they tend to be made largely by siblings. The latter seize upon large and minor differences in traits, aptitudes, and idiosyncrasies as a way of distinguishing one sibling from another and stimulate their development. Since such distinguishing features help a child to stand out as an individual, many children take opportunities to make them manifest. A child may accept his role with varying degrees of gratification and make adjustments to it, or he may reject it with all the modes of negative adjustment, including deep resentment and attempts to escape it. Adjustment to one's specialized role within the family is, in some ways at least, the key to one's personality formation and status orientation in later phases of life [10, pp. 202-204].

The far-reaching influences of the family are clarified by the principle of *primacy*, an assumption that the first acts or experiences in a given category or series tend to impress more and have more weight than later acts in determining future reactions of an individual. Since family life offers opportunities for most original experiences, its future-determining role cannot be overlooked. Early family situations represent many prototypes for learning interpersonal relationships and attitudes toward other individuals and groups. Effects of such primal learning act as subconscious dynamic factors in later relationships and adjustments to various social aspects of living.

It is noteworthy that the American family is again becoming a rather large system. Between 1940 and 1955, birth rates for third and fourth children in the United States continued to climb [17]. Despite the fact that the number of children is increasing and consequently the opportunities for interpersonal adjustment are expanding, deterioration of integrity and coherence is attested by present research on family life. Friction is widely present; increased frequency of separations and divorces is reported. The following changes in interpersonal relationships and experiences within the family structure may represent one significant yet empirically unascertained factor in this deterioration.

Parental roles. The role the father of the family assumes has changed noticeably within recent decades. Fathers are assuming a larger share of parental activity and responsibility. First, because of automation and union influences, the father has more time at his disposal to spend with the family. This is especially true in the lower-income brackets. Then, considerably fewer families are living with grandparents, other relatives, or boarders.

The influence of the father's psychological traits takes effect as he

comes in contact with the child and is instrumental in caring for its needs. If the father, for example, is tense and rough and disregards most of the child's attention-securing devices, the child's ego is threatened and his anxieties are aroused. As a result, his dependence on the mother is heightened because he needs consolation and tenderness. These compensative efforts may be successful if the mother responds differently from the father. Psychological properties of both parents and siblings are the child's sources in developing an idea of what kinds of persons do and do not offer gratification of his needs and desires. The child tends to generalize and to form expectations as his social environment expands.

TABLE 4-1
How Mother Felt When She Discovered She Was Pregnant
(N = 379)

	<i>Per cent</i>
1. Delighted; very happy; had been waiting and hoping for this	50
2. Pleased, but no evidence of enthusiasm (includes "This was a planned baby"—said matter of factly)	18
3. Pleased generally; some reservations	6
4. Mixed feelings; advantages and disadvantages weighed about equally	9
5. Generally displeased, although some bright spots seen	9
6. Displeased; no reservations	7
7. Not ascertained	<u>1</u>
	100

SOURCE: R. R. Sears, E. E. Maccoby, and H. Levin. *Patterns of Child Rearing*. P. 32. Evanston, Ill.: Row, Peterson & Co., 1957. By permission.

The role a father or mother plays may vary extremely in its effects on a child. Children look at parents and adults from their own deeply subjective point of view. As Bossard [2, pp. 55-56] points out, "The relative importance of adult family members in the child's development is not determined solely by degree of kinship, but also, and perhaps even largely so, by the needs of the child and the satisfaction of those needs by the various members of the family group." Since the mother usually spends more time caring for her child, she is the one who gratifies many of his wants and whims. Hence, the mother is in a natural position to take a key role in guiding the child's life.

The variability in the character of this role is illustrated by two tables from R. R. Sears, Eleanor E. Maccoby, and H. Levin's detailed study [6] of attitudes and patterns in child rearing assessed on the basis of data supplied by 379 American mothers. Table 4-1 points out original

attitudes toward having children, while Table 4-2 distinguishes among techniques of child management.

T. Parsons [15] observes that mothers “are continually about the house” and are doing relatively tangible work. Therefore, it is “possible for the daughter to participate actively and usefully in many of these activities.” From an early age she is initiated into many important aspects of the feminine role. The father spends much more time away than the mother, and many of the masculine functions at home are less tangible; therefore their meaning remains to a larger extent inaccessible to a boy. This leaves him “without a meaningful model to emulate” and with less “possibility of a gradual initiation into the activities of the adult male

TABLE 4-2
Extent of Use of Tangible Rewards
(N = 379)

	<i>Per cent</i>
1. Mother never uses rewards	12
2. Rarely uses rewards	18
3. Sometimes uses rewards	21
4. Fairly often uses rewards	22
5. Frequently uses rewards	19
6. Regularly gives rewards for “good behavior”; elaborate system for earning money or points; believes rewards are effective; evidence that this is a major technique for the mother	<div><div>6</div><div>100</div></div>

SOURCE: R. R. Sears, E. E. Maccoby, and H. Levin. *Patterns of Child Rearing*. P. 321. Evanston, Ill.: Row, Peterson & Co., 1957. By permission.

role.” This helps to explain why girls generally conform to adult expectations, while boys are frequently resistant and defiant of adult notions of their behavior standard.

Television. Among the many factors influencing home life, television is noteworthy. Since TV operates with both pictures and sound, it offers a great stimulus power to its viewers, children and adolescents in particular. Television programs have educational value unless they are sensational and bizarre and deal with crimes and violence. Many programs contribute much to the human career of learning. By word and illustration, they expand the person’s reservoir of ideational material for associations and thinking, and provide incentives for interests and activities. Television sometimes stimulates the interests of the child by providing material supplementary to the regular school curriculum. The child who watches a special science program or the reenactment of some

historic event may become curious enough to read more on the topic. Perhaps some rather nebulous or remote academic concepts might be made more concrete and vivid by television. For example, a child might be taught about a distant land in class, and after viewing a travelogue on television, have a vivid concept of the country.

Sensational and mystery shows tend to spoil individual taste for better programs and to divert the viewer from reading and relaxing. The resulting tension may not merely affect readiness for sleep but also exert subtle influence in raising family tension and friction, because patience threshold seems to be cut down considerably and a desire for something unusual elicited. Long nocturnal TV programs result in listlessness and inattentiveness in school the next day. A significant number of children are permitted to view late night and even midnight shows. These programs are often freighted with horror, sex, or criminal themes which naturally take their toll of the child's nervous system and his behavior. If a child continues to watch such programs, loss of appetite, irritability, nightmares, sleeplessness, and other more subtle undesirable reactions may be expected.

School. Since the home lays the foundations on which teachers in school build up the child's motivation and knowledge, the popular reference to home as the best school is apparently correct. Practically all major patterns of behavior are already acquired by the time a child enters school, yet school experience is more than mere transfer, extension, and modification of what has been acquired at home or in the neighborhood. A school child has some new materials to learn and new adjustments to make. The school teacher is more than a mother substitute. Because of the significant and unique role played by the teacher, increasing concern is being given to the selection of well-adjusted, mature men and women as educators. It is their job to help the child meet the new social and academic demands made of him. Studies attest that students tend to prefer teachers who are well balanced and even tempered, fair and consistent, well-groomed and attractive, democratic and helpful.

In the school situation the child must function independent of family support and must learn to accept authority outside the family unit, as well as competition. On the whole, the average child eagerly anticipates entry into school and manifests more mature behavior as a result of his attendance. Group dynamics at school are more complex than those of his neighborhood associations. It is a situation conducive to further steps in the never-ending process of socialization. The class group often acts as a corrective factor. The child has to fuse his behavior into the group pattern or face the rejection and hostility of the class. His acceptance by the group is conditional, while at home he may have been unconditionally accepted without making a contribution of his own.

In modern culture, school experience is an indispensable supplement to home training and education. Its experimentally founded methods and procedures dispose children toward curiosity and desire to learn to perform something which has manifold uses in their present and future lives. To a large degree, school relieves parents from educational tasks which would burden most of them. It provides periods of dissociation between parents and children which serve as phases of rest and of objectification of their relationships. These and some more specific influences of school are presented in some detail in Chapter 12.

Society. The matrix of human life is social in character. Establishment and change of interpersonal relationships are a daily affair. Modern society, with its aggregation of people in cities and suburban areas, provides almost unlimited opportunities for social intercourse. Automobiles, trains, ships, and airplanes permit a great extension of direct human interaction, while radio, television, and motion pictures serve as means of indirect contact.

The community is the first large social structure which serves as a framework of socioeconomic life. Careful observation on a drive through several large cities and rural areas will reveal great differences in neighborhoods and their inhabitants. Some American communities are well integrated and comparatively stable; the feelings of relationship in them are strong and continual. The corrective influences of many such communities are sound and extensive. Yet many cities have districts in which the population is constantly on the move and community-forming forces are weak and inefficient. Here the family is not assisted in developing the child's civic obligations. Hence, the morale of the people is low and the disorganizing elements are strong; cultural values and expectations appear confused. In this type of community, many individuals are disposed to social immaturity and cultural imbecility. The sociocultural ego—to use the concept of E. Durkheim—that is acquired through active participation in a given system of society and culture cannot be sufficiently developed and integrated. Some stable communities may also be rather unhealthy in their effects on many of their members since they foster a “keep up with the Joneses” psychology.

Child training. The focus on various methods of child care has been in flux throughout American history. In their recent *The Changing American Parent* [13], D. R. Miller and G. E. Swanson distinguish four overlapping areas in the changing American tradition of child rearing. Before the Civil War the focus was on methods designed to “break the child's will,” which was thought to be intrinsically evil. The second period, from 1860 to 1914, was characterized by opposition to corporal punishment and emphasis on stimulating the natural development of the child as a distinct individual. A regimented schedule of training was prescribed

early in the twentieth century to build the child into an independent, self-controlled individual. Up to and during World War II specific means to prepare the child to meet flexibly the changing social situation were emphasized by progressive educators. The child was allowed to set his own limits. The current-day tradition is the subject of Miller and Swanson's study.

Various objective measures have been devised to establish the specific social strata of particular families. The Index of Status Characteristics [12, pp. 22-25] assigns point values for such factors as type of work, income source, neighborhood, and type of dwelling. For example, a laboratory technician who depends solely on his salary for income and lives in an apartment building situated in an average residential neighborhood would find himself in the lower middle class.

The influences of social class on child-rearing practices have been studied by A. Davis and R. J. Havighurst in the Chicago area [11], by Sears, Maccoby, and Levin at Harvard [6] and by Miller and Swanson in Detroit [13]. In these research studies it was found that middle-class families generally tend to have high educational goals for their offspring. Middle-class parents permit their children to move about more during the day. Lower-class families tend to use more severe punishment in toilet training, while on the whole middle-class mothers utilize more symbolic controls.

Miller and Swanson [13] studied 1,157 Detroit homes housing 2,556 adults. The subjects were a representative cross section of urban and suburban households. In the group were 582 mothers with children under nineteen years of age. Miller and Swanson distinguished within each social class groups designated as entrepreneurial and bureaucratic. The entrepreneurial group contained families in which the husband was self-employed, employed in a small organization, or derived considerable income from profits or fees, or in which either the husband or wife was foreign-born or born on a farm. The bureaucratic husband worked for a relatively complex organizational structure, depended on wages or salary as income, and was not faced with much risk taking and competition. The study division proposed that the two groups were influenced by different conditions and experiences. Hence, they would be significantly associated with particular child-rearing practices. "Children raised in individuated and entrepreneurial homes will be encouraged to be highly rational, to exercise self-control, to be self-reliant, and to assume an active, manipulative stance toward their environment [13, p. 57]." On the other hand, the bureaucratic family would stress accommodating and adjusting to the world, especially to the direction of the organizational structure of which it was a member. Also its children would be permitted a greater degree of spontaneity.

These expectations were tested in such practical matters as methods of weaning, toilet training, and reward and punishment. The findings confirmed some significant differences between the two groups, especially in the middle class. For example, entrepreneurial mothers in the middle class were more prone to adhere to scheduled feeding, to use symbolic punishment, and to begin toilet training early. The researchers did not tend to find the significant differences between middle- and lower-class mothers which previous investigators had emphasized.

Following is a case summary which illustrates the operation of several undesirable factors on a growing person:

Fred is a twelve-year-old boy, small for his age, with extreme aggressive tendencies and a lack of control. He is constantly starting fights in school and bullying other children. His record is one of extreme truancy, with consequent poor school achievement.

Fred's parents have no control over him. His father is a heavy drinker who gives Fred beer "so he won't have to steal it." His mother babies him and will not allow his teachers to reprimand him. In this environment, Fred is developing into a self-willed, antisocial problem child.

He is the leader of a gang of delinquents, and has led them into breaking into a school and all but destroying the interior. Alone, he has set fire to a garage, and contemplates still greater accomplishments in this area.

Despite repeated recommendations from school authorities, Fred is still in the custody of his parents, and his conduct is growing progressively worse. He lacks any concept of moral responsibility or social obligation and is generally impulse-dominated. Unless prompt care and a change of environment are secured, Fred will probably become completely psychopathic.

Culture. Fundamentally culture is a pattern of a people's life seen in terms of organizations and achievements marking related communities or societies. It encompasses all technology and civilization, law, morality, and religion, traditional and present trends, training and educational facilities, politics, arts, and recreation. As personalities, people create and affect culture, but in turn are highly affected by its qualities and characteristics. Since culture is usually an end product of centuries of human development, it cannot be readily changed; it maintains a certain stability from generation to generation. Cultural expectations and norms tend to be established. They apply to everyday living and special occasions alike. Not only do they include education and industrialization but also simple eating habits and culinary devices, and daily means of expressing affection and aggression.

The social order emphasizes the organizational structure of the population, while culture focuses on the customs, traditions, social graces, morals, beliefs, and roles which individuals play.

Culture consists of learned behavior. Thus, language and printed

matter are important elements of it, especially as a means of communicating achievements from one generation to another. Parents transmit tradition to their children, and there is a partial transmission of it to adults who immigrate into the society.

American culture is a version of Western Christian culture marked by pragmatism, industrialization, and high civilization. It exalts competition, specialization, and conformity. Sex and power are often seen as major positive valences. The pecuniary drive is strongly reinforced by emphasis on material gains and economic welfare. The stage of youth is an idealized phase of life. Praise and reward are strong motivational forces. Speed of movement and impatience mark many activities. To a large extent, American culture is a fusion of many cultural elements which give rise to many conflicting tendencies.

Socioeconomic subcultures and certain social groups have been distinguishable through the centuries. Initially class levels were based on economic assets, but personal endowment and education have become significant in determining status. A social class is defined by Bossard as "an aggregate of persons having approximately the same social status in a given society." Social status implies "the arrangement of groups of people on a comparative scale, in terms of social distance and prestige as well as of reciprocal rights and duties [9, p. 318]."

Each social group generally shares an identifying mode of living and conduct. There is a similarity of occupational status and income, house type, dwelling area, manner of speaking, dress, leisure-time activities, interests, and attitudes.

In American culture, there is more mobility in the class system than in most parts of the world. An individual is born into a particular class and usually dies in it, but there is the possibility of substantial changes, as expressed in the popular concept that any man's son has an opportunity to become President of the United States. Traditionally three social-class levels are defined: upper, middle, and lower. Some sociologists have further divided each class into an upper and a lower group, for instance, the upper upper and the lower upper. Bossard appraises many studies of the American class system and concludes that general approximations place 3 to 5 per cent of the American population in the upper class, 38 per cent in the middle class, and 57 per cent in the lower class [9].

The living habits of each of these groups have been analyzed. Children in the lower class tend to be physically more aggressive and more independent, and have earlier sex experiences. Middle-class individuals tend to be more controlling and demanding as parents. They are ambitious persons who frequently are striving to attain higher status. Upper-class members enjoy more leisure activity, are educated in

the select colleges, and have an opportunity to develop aesthetic appreciation to a higher level.

Sharing in the fundamental characteristics of the whole culture are various subcultures consisting of members of the population who share special cultural preferences and features. Thus, there are religious groups which prescribe special food taboos, maintain various sacred rites of initiation, and insist on marriage within the subgroup. For example, there are the special dietary rules of the Orthodox Jewish people; their Bar Mitzvah exercises celebrated to signify the thirteen-year-old male's coming of age in terms of religious obligations; taboos against marriage outside the fold; and the perpetuation of the Hebrew tongue through language training of the young.

National and religious groups may also maintain significant subcultural patterns and a certain stability. For example, in the large metropolitan area of New York there are the Italian colony, the Jewish community, the Irish and Puerto Rican groups, and many other groupings formed largely on a religious or national basis.

ROLE OF SELF-DIRECTION

Increasing self-consciousness produces another major influence in a person's living. When a child becomes aware of his own body and some of his abilities, he learns to distinguish himself from others and from environmental factors. His inner needs and drives are then segregated clearly from objects and conditions gratifying them. Many likes and preferences appear. The child prefers to be guided by his own desires and wishes. Resistance to control at the two- and three-year level may be seen in the light of the child's effort to assert himself. The way others feel about a child may either encourage or impede him in the process of discovering his individuality. Acceptance and encouragement by others leads to a self-accepting attitude and ability to live fairly comfortably with his emotions and to stand up for his own rights. Self-acceptance, a necessary prerequisite for the development of a healthy personality, indicates readiness for self-direction.

W. Stern [7, pp. 444-446] traces the development of the child's self-direction through the following stages:

1. He clings almost entirely to the present and its chance stimuli and to his sensations of pleasure and displeasure.
2. His attitude becomes connected with inner experiences, and processes of deliberation and choice creep in between the sense impression and the ultimate response.
3. A dominant interest may maintain a certain fixation of aim in spite of many diversions tending to affect other reactions.

4. The power of certain motive groups which may have nothing in common with a chance stimulus is felt. Such powers become permanent qualities of the child's character.

A child's self-directive powers liberate him from original innate inclinations and from environmental factors; the self, when developed, constitutes a pivot for integration of everything important that has occurred up to the present time. It establishes an order of priority in responding to various stimuli, sentiments, ideals, and goals. It becomes a final arbiter. Actions in accordance with the self have the right of way. Environmental pressures enhance or interfere with them rather than elicit responses of their own. Self-direction is closely allied to personality and character development. Preadolescence and early adulthood are periods during which self-direction is magnified. The individual tends to act more and more on his own abilities and resources. As a result, self-actualization of one's endowments is greatly promoted.

QUESTIONS FOR REVIEW

1. How do physiological and emotional factors contribute to the development of individuality and personality?
2. What is heredity, and what makes heredity practically unique for most individuals?
3. In what significant ways does environment affect a human being?
4. What are the major parental influences on children? Analyze some of them.
5. Explain the law of primacy and its role in adjustment.
6. Indicate the major findings of the study of Bossard and Boll, *The Large Family System*.
7. What are some of the outstanding school influences that affect the child and the adolescent?
8. In what significant ways do society and culture influence human behavior?
9. When do signs of self-direction first appear, and how might its development be promoted?

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Developmental Aspects and Trends

THE PRINCIPLE that the individual develops as a unified whole, possessing an intrinsic unity throughout the course of development, has already been presented. However, it was also pointed out that various systems and the various functions of the organism and personality have different developmental rates and phases. In order to give a fuller picture of the relationships existing between various personality variables, the more significant ones will be treated individually. Each of these functions—physical growth, emotional development, intellectual maturation, socialization, and the self-concept—will be followed briefly through its own developmental cycle.

MAJOR PHYSICAL TRENDS

Physical development is anything but a smooth continuous function. Nor is it always progressive. Beginning in middle age and lasting throughout senescence, there is a deterioration in both structure and function.

The pattern of growth is cyclic. That is, growth occurs in spurts and plateaus. Each individual has a particular rate of growth, and yet it is comparable to that of all others, allowing for the wide variation of individual differences. The prediction of adult height, for example, can be made with extreme accuracy now, using as an index the ossification stage of various bones [6]. The various spurts and plateaus occur at predictable times. The first years of life are a time of tremendous growth, which gradually tapers off throughout childhood until it almost ceases at approximately ten years of age. The spurt at puberty is most noticeable in

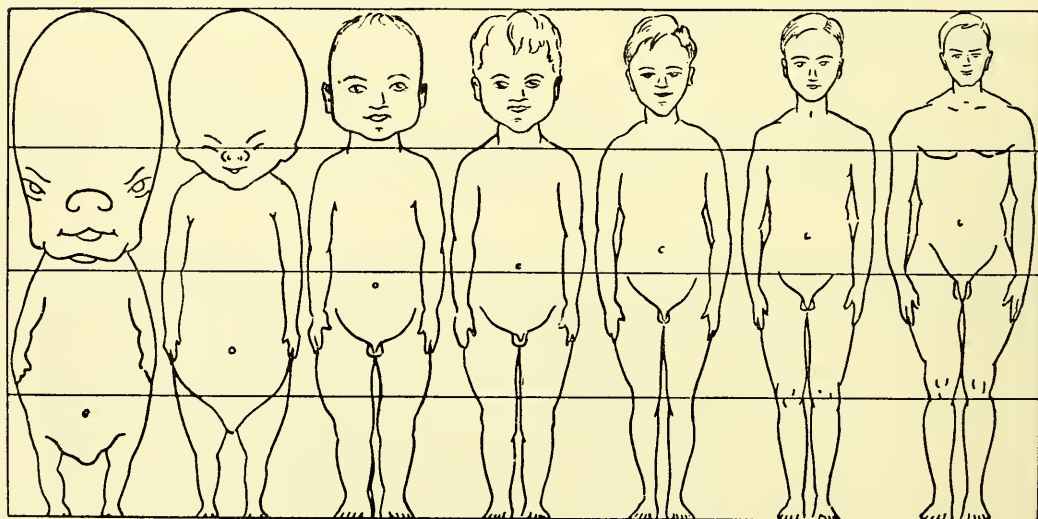
terms of height. This spurt is followed again by a tapering off until full height is reached, usually by the age of twenty years. Even more striking than the changes in height with age are the changes in proportion of various parts of the body. This maturation follows the cephalocaudal principle and is graphically illustrated by Figure 5-1.

Weight is relatively comparable to height in terms of cyclic development. Adult weight is usually reached in late adolescence. However, after the early adult years there is usually a gain in weight, often referred to as "middle-age spread."

The unfolding of motor abilities demonstrates another principle of development; viz., development proceeds from the general to the specific. Motor abilities demand a modicum of control over muscles. An infant first gains control over large muscle groups, then the fine ones. For instance, control is first attained for movement of the entire arm, then the hand, and finally the fingers and thumb. Locomotion follows the same general pattern from crawling to creeping, standing, walking, running, and hopping and jumping.

These basic motor abilities pave the way for the development of skills which must be learned. Eating, writing, and dressing oneself are examples of the skills which, through imitation and with encouragement, the child gradually acquires. Later more and more complex activity is engaged in. Bicycle riding, swimming, and other athletic activities provide many opportunities for the refinement of motor skills. Although puberty is accompanied by a loss of coordination due to the differences in rates of growth of various functions, this loss is soon compensated by the attainment of maximal physical strength and agility in late adolescence.

Figure 5-1. Changes in Proportions of the Human Body with Age



Fetal, 2 mo. Fetal, 5 mo. At birth 2 yrs. 6 yrs. 12 yrs. Adult
(G. A. Baitsell. *Human Biology*. New York.: McGraw-Hill, 1940; after Stratz.)

Figure 5-2 is a schematic presentation of the pattern of differentiation of growth. Beginning in the prenatal stage, there occurs an unfolding and refining of various structures and functions which continues through adolescence and culminates in maturity.

S. L. Pressey and R. G. Kuhlen [8, p. 62] observe that the life span is divided into three major periods of physical development. They characterize the first twenty years as a continuous growth period. "The prime" is used to designate the years from twenty to approximately forty-five, when the individual is at his peak. A slight recession follows but is mild until about the age of seventy, when definite decline and weakness set in.

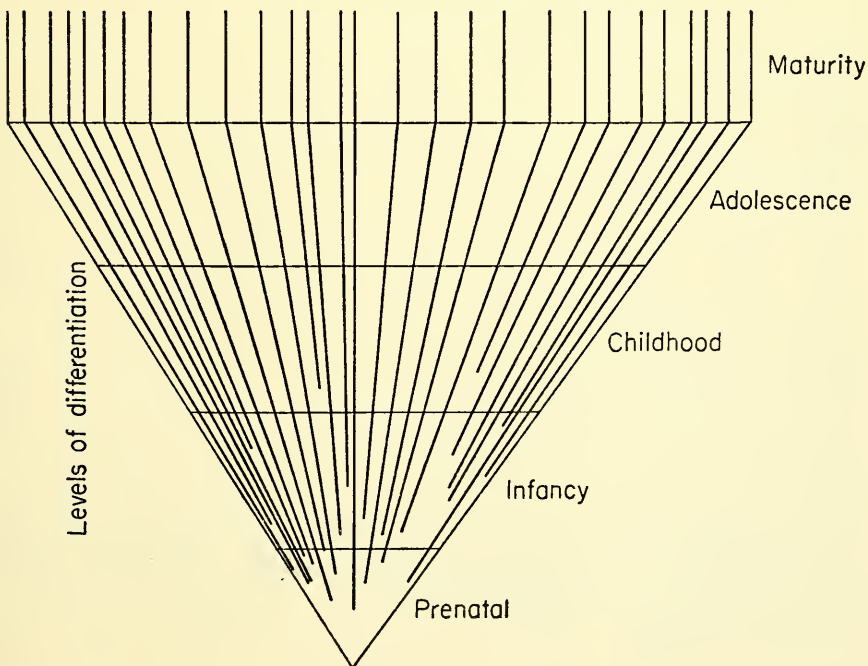
SYNOPSIS OF EMOTIONAL DEVELOPMENT

Because of the important role emotions play in organizing behavior, the development of the various affective states will be considered briefly.

Emotions are necessary for healthy living and adjustment. A child is primarily an imitative receptor of emotion. He must feel love and affection from others before he can reciprocate. Emotions are not innate in the sense that they develop spontaneously. Like every aspect of personality, emotions and particularly emotional expression are developed through learning and imitation.

The aroused states of the neonate and infant are only analogous to

Figure 5-2. Differentiation of Growth

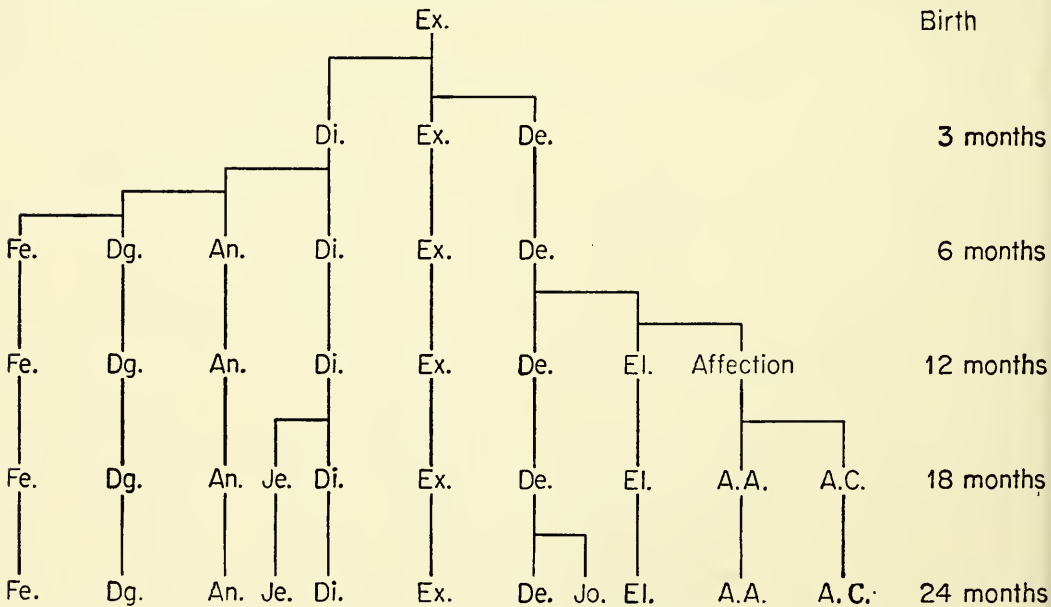


adult emotional states. However, very early in the first year patterns of response may be distinguished which are clearly recognizable as emotional. Figure 5-3 demonstrates the differentiation of various affective states during the first two years of life. The diffuse excitement of the neonate, which is a function of general mass activity of the organism, gradually assumes the quality of pleasant and unpleasant reactions. These are further refined into the more subtle affective states.

In early childhood, the individual usually enlarges greatly his repertoire of affective states and related behavior. The expression of emotional states has, by this time, been somewhat modified. The acquisition of speech has obviated the use of behavior as a necessary means of expressing emotions. The young child has already become aware of the power of his emotions in dealing with his parents, and knows how far he can go in expressing them.

At this period of development, sentiments generally emerge. With proper training, preschool children can acquire religious and moral sentiments. These are uncritically accepted in the child's fast-developing value system, and act as powerful organizers as well as deterrents of behavior. Envy and jealousy are vividly expressed at this level. Children at this age are typically self-centered and rather demanding. Again with

Figure 5-3. Bridges' Chart of Emotional Differentiation



Key: A.A.—Affection for Adults; A.C.—Affection for Children; An.—Anger; De.—Delight; Dg.—Disgust; Di.—Distress; El.—Elation; Ex.—Excitement; Fe.—Fear; Je.—Jealousy; Jo.—Joy
 (Katharine M. B. Bridges. Emotional Development in Early Infancy. *Child Development*, 1932, 3, 324-341.)

proper training, generosity and a spirit of sharing can be inculcated in the child at this time when these desirable attitudes and sentiments will most effectively take hold. Attitude development cannot begin too soon after the child's emotions become somewhat differentiated. Negative parental remarks about races, religions, authority, and related objects will be picked up by the child as will the attitudes behind them.

Emotional expression of children is very different from that of adults. Children's emotions are often explosive reactions to relatively slight stimuli. On the other hand, because children are not generally subject to moods, these strong emotions appear and disappear very quickly. Five minutes after a violent fight the combatants may be playing together happily. The important point to bear in mind is that children can tolerate only so much excitement. Constant emotional turmoil is as harmful to children as to adults. Children must learn self-control and develop frustration tolerance in order to avoid frequent arousals of emotion.

During middle and late childhood, emotional development is rather slow and regular. The child is learning more self-control through association with others. He is also refining the emotional states he is capable of experiencing.

Complete emotional development is attained in adolescence. In the latter part of this period, all the adult affective states can be experienced by the individual. Moods, virtually unknown in childhood, may plague the adolescent. One week he may be almost euphoric, the next week find life bereft of all joy. Adolescence is a period of oscillation between moods. Toward the end of adolescence, the reactions of the individual become more mature and suited to coming adulthood, yet emotions continue to play an important role in motivation. One feature of emotional development peculiar to adolescence is the emergence of the sex drive and its relation to mature love. In early adolescence there is usually an idealization of the love object. This makes a fusion of sexual object and ideal object difficult. It is in late adolescence and finally in early adulthood that the individual can attain mature heterosexual love, necessary for marriage.

In adulthood, emotions do not develop any further; rather, the maximum affective sensitivity and refinement is attained. The next real change in emotions comes in senescence. There is generally a drastic reduction in social interaction; hence, social emotions play a much smaller role. Figure 5-4 attempts to depict schematically a genetic theory of emotions. The changes in old age are pertinent to our discussion. The older person tends to withdraw and become increasingly apathetic. Emotional satisfaction is more and more vicariously derived from memories. This will be further discussed in the treatment of senescence in Chapter 23.

Figure 5-4. Schematic Presentation of a Genetic Theory of Life-span Emotional Changes

<u>Infancy</u>	Process of differentiation and integration	<u>Maturity</u>	Processes of consolidation and some disintegration	<u>Old age</u>
Undifferentiated response Random behavior		Mature emotional sensitivity and control Maximum differentiation of response and aesthetic feeling		Constricted response Perseverative behavior
Excitement	anxiety			Apathy and passivity
	grief		grief	
	shame		worry	
	anger		self-pity	
	distress-disgust		guilt feelings	
	jealousy		querulousness-depression	
	disappointment		irritability	
	restless		boredom	
	uneasiness			
	joy		mystical	
	elation		ecstasy	
	hopeful		possessive	
	anticipation		satisfaction-content	
	delight-affection		benevolence	
	sex love		gustatory	
			sensuousness	

(Katharine M. Banham. Senescence and the Emotions: A Genetic Theory. *J. Genet. Psychol.*, 1951, 78, 175-183. By permission.)

INTELLECTUAL MATURATION

Human beings are the only creatures on earth who possess intellect. It is the rational and volitional powers which make men essentially different from, and superior to, animals. Intellect, although an integral part of man's essence, still must be developed. As is that of other functions, its developmental rate is phasic. Definite spurts of intellectual growth are evident. Since intellect is not a function which can be assessed directly, it must be defined operationally for purposes of measurement, prediction, and understanding. Hence, *intelligence* is commonly used to denote the processes whereby an individual forms concepts, solves problems, and makes decisions. Performances resulting from application of intellectual functions can be measured, analyzed, and predicted.

The neonate demonstrates virtually no particularly intelligent behavior for some time after birth. However, the assessment of intelligence may be made from various other functions. Since the more intelligent child tends to develop faster in all areas of personality, even locomotion and language behavior may be used to predict intelligence.

The actual demonstration of intellectual development is usually seen in verbal behavior. The quickness with which a child learns new words, his discriminative ability, breadth of generalizations, and vocabulary level are all fairly reliable indexes of intelligence. In terms of actual thinking, the child's first judgment usually appears toward the end of the second year. It is about this time also that longer phrases and sentences begin to be used.

Curiosity is a spur to intellectual development. Although the constant "Why?" or "What for?" of a child may at times annoy parents, it is a major way children have to learn of the world about them. The type of questions asked is indicative of the level of intellectual development. The very young child wants to know "What?" or the name of a thing. "Why?" is the next level, but it is a concrete type of curiosity, satisfied with unelaborated answers. The school-age child is conscious of meaning and often asks about uses, or "What for?" In adolescence, the peak of intellectual development is attained in an unrefined way. Adolescents are capable of philosophical and propositional reasoning, and are concerned with cause and effect and ultimate reasons.

Following the attainment of maximal mental development in adolescence, usually at fifteen to sixteen years of age, there is a refinement and polishing of the intellectual powers. Keeness of discrimination, perception of relationships, vocabulary, and other related abilities are increased. As estimated by intelligence tests, the peak of mental functioning is between the ages of twenty and twenty-five years.

With adulthood comes a slackening in exercise of intellect for most individuals. Formal education is completed, and the problems of marriage and occupation usually minimize time spent in cultivating the mind. There is generally a gradual reduction in keenness of intelligence throughout adulthood.

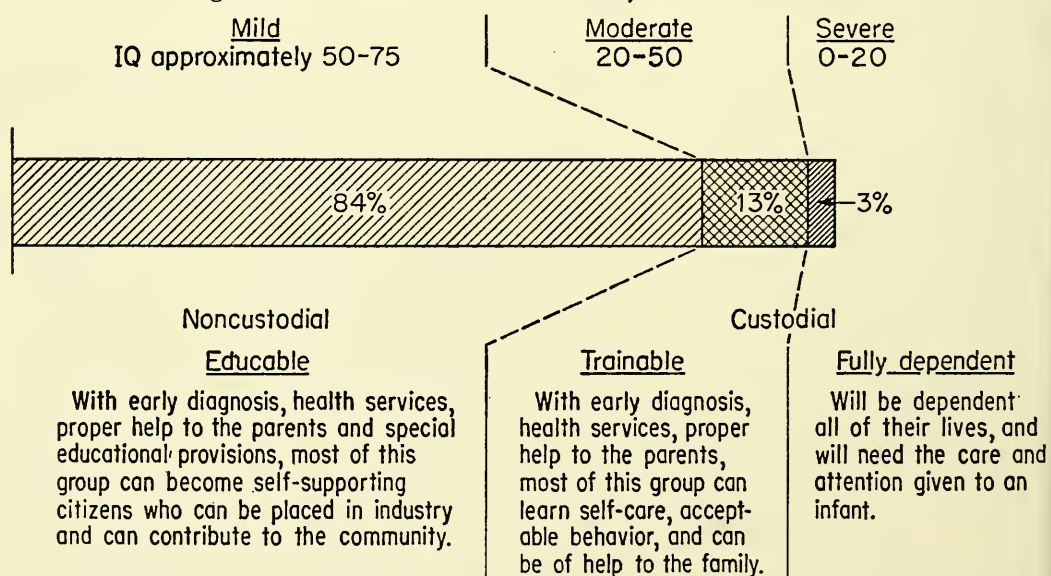
In senescence, intelligence generally deteriorates as do the other functions. There are many outstanding exceptions to this rule, but the generalization is correct for most individuals of advanced age.

One of the most controversial problems in this field is the measurement of intelligence. There is still some uncertainty as to just what intelligence tests do measure. However, if the limitations of the definitions of intelligence and of the various tests are acknowledged, it may be said that they are doing a good job. At present, intelligence tests are used to discriminate among feeble-minded, dull, average, above-average, and superior school children in order to place them in the best possible type of learning situations.

In a diagnosis of feeble-mindedness, the intelligence test, by classifying the individual according to degree of it, offers a prognostic evaluation also. Figure 5-5 shows the classifications, frequency, and amount of dependency of each subgroup of mentally deficient children.

In terms of prediction, intelligence tests are used validly sometimes as early as the third year and definitely by school age. By means of the

Figure 5-5. Classification of Mentally Deficient Children



(Modified from: Fact Finding Committee. *Midcentury White House Conference on Children and Youth. A Graphic Presentation of Social and Economic Facts Important in the Lives of Children and Youth.* Washington, D.C.: National Publishing Co., 1951.)

tests, children are placed in situations which will prove intellectually challenging and stimulating, not overpowering and frustrating.

Some points about learning may be helpful. Of utmost importance are opportunities to learn. Children and adolescents need a constantly expanding environment which will present new stimuli. In the case of the young child, much of learning is a result of sensory exploration. Touching, biting, hitting, and dropping are his methods of testing and knowing an object. A child who is confined in a playpen to "keep him out of mischief" is going to miss many opportunities to learn. When language is mastered, the child's questions may be more than occasionally ignored by busy parents. Again, this denies him many valuable learning experiences.

In adolescence, learning is on a much more complex level. Adolescents must develop criteria for choosing friends and must learn many necessary social graces. In these areas, practice and experience are essential. Similarly, the adult must make opportunities for these things himself, which will broaden and enrich his outlook on life. Maintaining interest in subjects outside one's occupation is beneficial to mental health. When retirement comes, hobbies and special interests are invaluable in rechanneling some of the energy no longer devoted to working.

LEVELS OF SOCIALIZATION

Socialization refers not only to the degree to which an individual interacts harmoniously with others but also to the factors which act upon the individual to develop a socially mature individual from an autistic child. As is true of other functions, the development from self-centeredness to sociability is neither continuous nor painless.

Following the principle of primacy, it is safe to say that the character of early social experiences will greatly influence later social success or failure. In this regard, parents are the earliest and most powerful socializing agents. Their relationship to each other and to the child is the one which the child will perceive as characteristic of most interpersonal relationships. Love of parents for each other and for the child will result in a warm, relaxed family relationship. The attitudes of parents toward their own associates will be introjected by the child. Constant gossiping, criticism, or dissatisfaction, if expressed in the presence of the child, will induce negative attitudes in the child toward others.

Just as serious as gratifying the child's needs is the responsibility of parents to act as representatives of society and its restrictions. Children must be taught impulse control, sharing, obedience, self-direction, and related positive attributes which will equip them to deal effectively with others. Overpermissive parents damage a child's future when they permit

him to have his own way constantly. When their child faces the inevitable frustrations of life, he will be ill prepared to cope with them.

Like learning, socialization demands opportunities, and the earlier the better. The preschool child should have experiences in group activity. Learning the give-and-take of the peer group is necessary. Attitudes of sharing and social behavior in general which are learned in childhood tend to persist throughout development [7, p. 263].

The pattern of social development is predictable. Social interaction begins with the infant's differentiation between persons and things. He gradually learns to respond to parents, to discriminate between familiar and strange faces, and to imitate the actions and words of others. Social interaction is furthered by speech. The child learns to make his needs and feelings known not only by overt behavior but also by words. Parents can help their children by making it clear that speech is preferred to crying, tantrums, or other demonstrative behavior. The family is the primary socializing agent, and it remains the most influential in shaping the child's character, values, and principles until approximately nine or ten years of age, when the peer group becomes the most influential factor. The gang stage of preadolescence is characterized by intense group loyalty. In early adolescence there is much dependence on peers, but self-direction and self-reliance increase so that by late adolescence the individual is inner-directed and governs his own behavior.

The levels of socialization are fairly well defined and observable. The very young child is a self-centered creature and derives his satisfaction from self-initiated activity. This solitary play may be parallel play also; that is, although many children are playing in a room, there is very little interaction among them. Cooperative play begins in early childhood, but is frequently interrupted by quarrels. The period of negativism which occurs from about two to three and a half years of age is an important step in socialization. It marks the first self-assertive activity of the individual. How it is handled by parents may mean the difference between a spoiled and an obedient child.

Cooperative and competitive play are characteristic of middle childhood and are indicative of a rather advanced degree of socialization. Middle childhood brings with it school entrance. This is also an important step because an extrafamilial authority must be responded to properly. Codes of behavior regarding taking turns, telling lies, informing on classmates, etc., are soon developed by the group. The child's adherence to, or deviation from, these enforced rules determines his degree of acceptance in a group. Group interaction and interdependence deepen until puberty, when the individual, for a while, reverts to a solitary mode of living. This withdrawal is temporary, and adolescence is generally a group-dominated period of life. The individual is concerned with es-

establishing heterosexual friendships, but embarrassment and extreme self-consciousness hinder easy communication between the sexes.

In late adolescence and early adulthood, the possible choices of a life mate are reduced until the decision is made. The necessary adjustments to marriage are a significant developmental task and one of the highest degrees of socialization. Throughout adulthood, one's social horizon expands through friendships, business associates, and acquaintances from other areas of life. As senescence nears, however, there is an increasingly sharp decline in new friendships, and a gradual loss, due to moving, retirement, or death, of old associates. Senescent individuals tend to become withdrawn and apathetic, reversing the process of socialization.

THE SELF-CONCEPT

The concept of the self, its development, and related terms such as ego and character, form perhaps the most controversial area of current psychological theory and research. That there is a self-concept is not disputed by many, but its properties and development are the source of much speculation. The self-concept may be defined as that group of perceptions, evaluations, and other processes which refers to one's sense of personal identity. Although the processes, such as thinking, willing, and feeling, are important, the emphasis remains on the self as object, and on the person's perceptions, feelings, and attitudes as they have reference to himself.

The self-concept as an organizer of behavior is of great importance. Most of the time an individual's actions are in accord with his idea of himself. If a person perceives himself as inferior or socially inadequate, whether or not this is objectively true, he will act in accord with this subjectively perceived defect or compensate for it.

Consistency of behavior and continuity of identity are two of the chief properties of the self-concept. Although subject to change and natural development, they tend to resist most modifications. This is in part due to a natural desire for stability in the individual, and in part due to reinforcements from his environment which are consistent with his concept of self.

To qualify its consistency, the self-concept is also fluid. Being partly a result of perception and experience, it is dynamic and is constantly assimilating new percepts. Most of the changes in the self-concept are superficial, remaining within a tolerable range of modification. Percepts which would radically distort the self-concept, even favorably, are often suppressed, repressed, or denied reference to self, as when persons explain, "I wasn't myself," or "I lost my mind."

Continuity of identity is an essential part of the self-concept. Although

recognizing the manifold changes in almost all functions of personality as a result of maturation and learning, the individual nevertheless realizes that he is the same person he was ten, twenty, or more years ago. Underneath the changeable aspects, there is a substratum which is the "person" of each human being, or more philosophically, his essence. There is also a certain tendency to change gradually, which allows self-identity to remain constant throughout the life span. Only severely disturbed individuals lose this sense of self-identity.

It is difficult to say at what point in development the self-concept first emerges. Potentially it is present from birth in that the infant is aware of visceral and sensory stimuli originating in, or pertaining to, his body. However, these are crude sensations, and it is doubtful if meaningful perceptions and any unification of them are present at the neonate and early infant levels.

T. R. Sarbin [9] has formulated an interesting theory concerning the genesis of the self-concept. It begins with a "somatic self" at birth, which remains the core of the self-concept until about two years of age, at which time it becomes just another factor in the self-concept. This "somatic self" consists of percepts pertaining to the neonate's body, such as sensations of hunger, dampness, or indigestion. Following this and superimposed on it is the "receptor-effector self," which consists of conceptions of the sense organs and musculature. The "primitive construed self" which follows from the previous two is a rather vague awareness of self as an individual being. The "social self" emerges at approximately two years as a definite sense of self-identity and awareness of different roles and relationships with others. At this time, which is the beginning of the period of negativism, "I" and "me" are used meaningfully. This emergence of self-awareness, occurring at the beginning of the negativistic age, may be seen as the first manifestation of a genuine self-concept.

The self-concept, being a part of the personality, is influenced by the same factors which affect personality development. Values are introduced by the self from parents first, then from teachers and peers. The young child, through identification with and training by parents, gradually evolves a self-concept consistent with these values. Reinforcement is virtually constant: behavior of the "good me" is rewarded; behavior of the "bad me" is punished. The suggestibility and flexibility of the early self-concept makes moral and social training far easier than later, when the structure of the self has become somewhat more deeply entrenched [10].

Through middle and late childhood, the peer group comes to play a more dominant role, gradually displacing the parent as the primary influence on the self-concept. The child more and more comes to identify with the group and to assimilate codes of behavior from his peers.

During middle childhood, the self-concept stabilizes somewhat, owing to the relatively even rate of development of the different personality variables. However, with puberty there occurs a drastic change in the self-concept. The young adolescent must perceive himself as an adult in some ways, and in others as yet a child. Self-control and self-direction must be increased although independence is in most cases impossible for several years.

A peculiar problem in our society is the double standard which many parents use in judging their teen-age offspring. In some instances, they are expected to act as young adults and are judged accordingly, while in other cases, they are treated as children. Since the self-concept is in part formed from others' evaluations and concepts of the individual, this inconsistency on the part of parents only compounds the adolescent's problems.

Because of the extensive changes affecting the adolescent in almost all areas of life, the self-concept is also in turmoil during this period. The uncertainties of the future make the formulation of definite goals a difficult task. However, it is in the resolution of these adolescent problems and conflicts that the self-concept of the adult is born. The values and principles which are part of the self-concept at the end of adolescence are those which tend to be the permanent organizers of behavior.

In early adulthood, which also poses new challenges and responsibilities, the self is tested and proved and by approximately thirty years of age is completely formed and stable, resistant to change. Middle adulthood does not generally change the basic qualities of the self-concept, except to modify it with age and experience.

The increased longevity which man is enjoying today has concomitant drawbacks. With the policy of involuntary retirement so prevalent, the individuals affected by it often make drastic changes in their self-concept. After thirty, forty, or more years as breadwinners and contributing members of society, many of these individuals find themselves relegated to positions of second-class citizens. The self-concept necessarily suffers in such cases. The self-concept and its properties at the child, adolescent, adult, and senescent levels will be treated more fully in later sections of the text.

QUESTIONS FOR REVIEW

1. What are the various stages of physical growth and the characteristics of each?
2. Discuss the role of various factors influencing emotional development.
3. Discuss the various stages of intellectual maturation.
4. Explain socialization and its various levels.
5. Discuss the relationship between emotional development and socialization.
6. Discuss the influence of parents and peers on the self-concept.
7. Discuss the acquiring of values during childhood.
8. How is intellectual development related to the self-concept?

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- Common Fallacies about Group Differences* (15 min) McGraw-Hill, 1957. Popular notions about races, nationalities, cultures, and personality are analyzed in the light of scientific evidence.
- Development of Individual Differences* (13 min) McGraw-Hill, 1957. The relative influence of heredity and environment upon behavior is presented and family resemblances explained.
- Heredity and Family Environment* (9 min) McGraw-Hill, 1955. The basic roles of heredity, self, and environment are explained and illustrated by using one individual as an example.
- Our Changing Family Life* (22 min) McGraw-Hill, 1957. A portrayal of the contrast between the highly integrated farm family life of 1880 and the drastically changed family life of today.
- Preface to a Life* (29 min) National Institute of Mental Health, 1950. Shows the influence parents have on a child's personality. Parental acceptance of the child as an individual, influence of a solicitous mother and a demanding father are portrayed.
- Sibling Relations and Personality* (22 min) McGraw-Hill, 1956. Shows various repercussions on personality of relationships a child has toward his brothers and sisters throughout the periods of childhood.
- Social Class in America* (16 min) McGraw-Hill, 1957. Contrasts and difficulties inherent in social status are exemplified by three boys.

SECTION

III

PRENATAL GROWTH AND BIRTH

S ECTIONS I and II analyzed principles and conditions under which human development takes place. This section introduces the origins and earliest changes of the individual himself. It attempts to identify the factors operative at conception and within prenatal life. Healthy and disturbing influences are presented in order to get a more complete picture of these most crucial phases of early development.

Although the prenatal period and first weeks of postnatal life constitute but a small portion of man's life span, their significance is tremendous. The very survival of the individual is dependent upon the fine timing and coordination of myriad factors. The introduction of any one of a multitude of unfavorable environmental conditions may have far-reaching effects on the entire psychological integrity of the person. Inasmuch as the very bases of behavior, the nervous, glandular, and circulatory systems in particular, are formed and developed during this time, the capacity of the individual to adapt himself to his environment is largely determined at this early stage. In addition to the consideration of these formative processes, the necessary adjustments to extra-uterine life, the individual differences following birth, and the care needed at the neonatal level are assessed.

CHAPTER

6

Prenatal Development

THE MIRACLE of growth and development is never more perfectly illustrated than during the period prior to birth. During this time the organism changes from a comparatively simple single-cell structure to a tremendously complex structure consisting literally of billions of cells. The multiplication of cells is not, however, the remarkable aspect of this period of growth. It is rather the differentiation of these cells into various functioning units which constitutes the remarkable aspect and real essence of prenatal development. Thus, from the original single cell develop cells and structures which are sensitive to specific stimuli, the receptors; cells which are capable of contracting, the muscles; cells which form and secrete a variety of chemicals, the glands; and cells which are ordained to a vast array of other functions.

The prenatal phase of development may be divided into three important stages. In each of these, specific tasks must be accomplished. The fulfillment of these, however, is not without serious obstacles and dangers. Generally, under normal conditions these obstacles and dangers are overcome. The prenatal period encompasses very crucial growth since every other period of development depends upon the adequacy with which the tasks of the prenatal phases have been mastered.

PERIOD OF THE ZYGOTE

Of the period of prenatal development's three general stages, the first is termed the period of the zygote or period of the ovum. Beginning at the time of conception, this period extends to about the end of the second week of life. As in the other stages of development, essential processes are inherent in this period. Moreover, definite dangers to the further growth and development of the organism are present. Each stage

of development, whether a prenatal stage or some period later in life, is dependent upon what has been accomplished during the preceding stages. In the case of the zygote, development is intrinsically bound to the hereditary disposition established at conception and to the physiological functioning of the mother. Consequently, future normal development can scarcely be expected if the normal sequence of progress is not established at this initial stage of growth.

As indicated above, the period of the zygote is initiated at the time of conception, when the nucleus of the male germ cell, the spermatozoon, merges with the nucleus of the female germ cell, the ovum. Ordinarily only one matured ovum is released from the ovaries and passed into one of the Fallopian tubes. In cases where several ova are released simultaneously, one condition suitable for the occurrence of multiple births presents itself. Through strong chemical action the male germ cells are attracted toward the ovum. In the case of conception, the ovum is penetrated and fertilized by a single spermatozoon. Although recent evidence indicates that the ovum may be penetrated simultaneously by more than one spermatozoon, conception in such cases fails to occur. Rather, when it is penetrated and fertilized by a single male germ cell, a wave of chemical changes occurs within the ovum, producing a "fertilization membrane." This prohibits penetration by additional spermatozoa [10, p. 12].

Following fertilization, the newly formed zygote normally passes down the Fallopian tube and into the uterus. During this transit the uterine walls, through the action of hormones released by the ovaries, are being prepared for the reception of the zygote. Upon arriving in the uterus, the zygote becomes implanted in the wall and, for the first time, begins to derive nourishment from the mother. (During the days preceding implantation the zygote has subsisted on nourishment provided by the yolk of the ovum.) Once this function is established, the organism starts its differentiation, and a fast increase in size occurs.

The period prior to implantation, however, has not been without notable developmental changes. During this period, the original zygote has divided and redivided many times until a tiny globule of tissue exists. Moreover, its cells have differentiated into an outer layer, from which will develop the supporting structures of the growing organism, and an inner core, from which the new organism itself will develop.

The preceding description is a very brief account of the normal processes occurring during the initial stage of life. However, there are many other events which can take place. For example, the zygote may fail to pass into the uterus. In such a case, it may implant itself in some other location. Such "ectopic pregnancies," estimated to occur once in every 500 conceptions, almost invariably result in the eventual destruc-

tion of the organism [8, p. 176]. In addition to this type of abnormality, there is always the danger that, being nourished only by its own yolk, the zygote may perish before implantation can occur.

As indicated, only one ovum is ordinarily released. In cases where two are released and fertilized (each by a different spermatozoon), the offspring are termed *fraternal twins*. From the discussion of heredity in Chapter 4 it is obvious that the hereditary similarity of such offspring is no greater than that of any other children born of the same parents. Consequently, the tendency of many parents to treat such children in the same manner and to expect the same degrees of achievement from them becomes just as wrong as expecting a younger child to conform to the norms established by an older sister or brother. Such failure to recognize the basic individuality of the person is almost equally ludicrous when such treatment is afforded to *identical twins*.

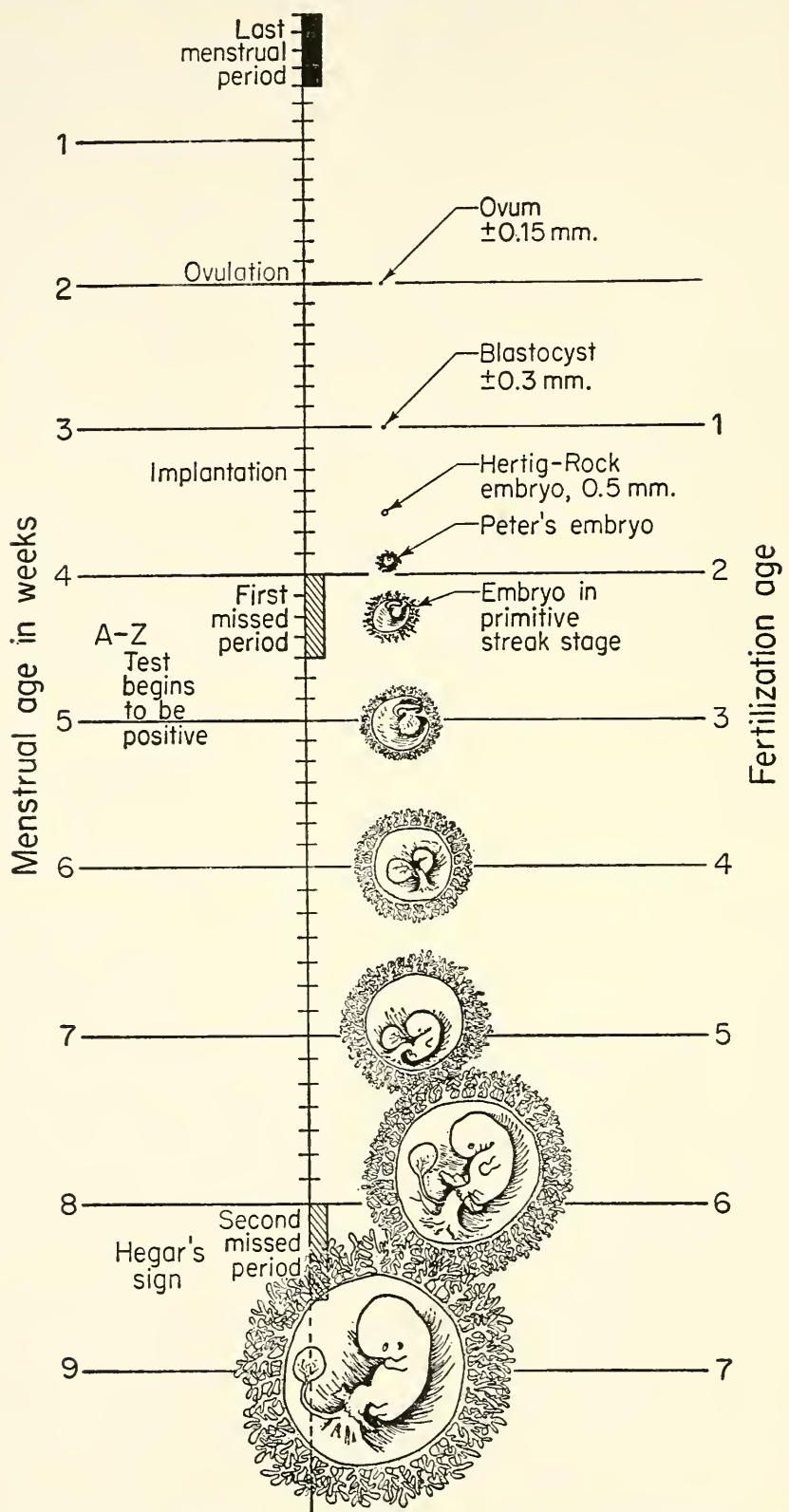
In the case of identical twins (actually there may be more than two), a single ovum has been fertilized. In the process of cell division occurring early in the zygote period, the individual cells become separated and develop as individual organisms. The hereditary similarity of such offspring naturally may be virtually complete, the only differences being those introduced by the possible failure of the zygote to divide into perfectly equal units. In physical appearance, such children may be actually indistinguishable. But each is a unique person for neither the prenatal environment nor the sequence of events following birth is identical for such twins.

PERIOD OF THE EMBRYO

With the implantation of the zygote in the wall of the uterus, the second major prenatal period begins. This, the embryonic period, extends until approximately the end of the tenth week of life. During this phase the rate of growth in over-all size is indeed tremendous. From a minute globule of tissue no larger than the head of a pin, the body advances rapidly in size, weight, and complexity. The extensive changes are vividly illustrated in Figure 6-1, which represents the actual size of the developing embryo from one to seven weeks old.

Following implantation, the greatest changes in the body are not those of size and weight. Far more important is the differentiation of tissue into the various structures of the body. Whereas at the beginning of the embryonic period the organism consists largely of undifferentiated cells, by the end of the period all major organs and systems have been developed. Thus, one finds in very rudimentary form the nervous system, including the brain and spinal cord; the specialized receptor mechanisms, such as the eyes; and the heart, lungs, digestive system,

Figure 6-1. Early Prenatal Mitosis (Diagrams showing actual size of embryos and their membranes based on the mother's menstrual history)



(Bradley M. Patten. *Human Embryology*. (2nd ed.) New York: McGraw-Hill-Blakiston, 1953. By permission.)

and other organs. Most of these structures and systems are far from functional. Through the maturational processes of the following months they will finally be prepared for their duties in sustaining the life of the individual. It should be noted, however, that by the end of the embryonic period the organism has acquired a decidedly human form: no longer might it be confused with the embryo of an animal.

The sequence of development during the embryonic stage is quite systematic and regular. Thus, each organ and organ system has a particular time for its emergence. This, of course, is a highly desirable characteristic of development, but it can pose something of a problem. Should a temporary disturbance take place at the time a particular system normally develops, that system will be, to a greater or lesser degree, temporarily or permanently impaired. If, for example, the delicate chemical balance of the mother is upset seriously, the effects on the growing embryo may be permanent, even if the normal balance is later restored. It is for this reason that certain maternal ailments are of particular significance during this period, although the same illnesses are relatively insignificant at a later stage of pregnancy.

Still another danger present during this period is the possibility that the embryo will be dislodged and a miscarriage will result. With the passage of time, however, this threat becomes less. Thus, A. F. Guttmacher [5, pp. 195-206] has estimated that 72 per cent of all miscarriages occur by the end of the third month. The causes for miscarriages are varied: falls or injuries to the mother, malnutrition, hormone imbalance, etc. One interesting relationship is found between the incidence of miscarriage and the sex of the offspring. It is estimated that for every 100 female embryos so lost, there are 160 males lost.

PERIOD OF THE FETUS

Whereas the embryonic stage was largely characterized by the differentiation of tissue into the various bodily organs and systems, the fetal period is largely one of refinement and perfection of these systems. It is devoted largely to the preparation of the organism for the act of sustaining itself after birth. Thus, at the beginning of the fetal period all major organs and systems have been formed, and the organism shows characteristics of a human body rather than some animal. During the remaining months of prenatal development, the organs and systems necessary for the infant at birth advance to a point at which they are actually functional. When this point is reached, the fetus is said to have achieved the age of viability. Typically this is at about the end of the seventh lunar month, although cases of it at the end of six months have been reported.

During the fetal period the bodily structures show an increase in size and complexity, and many actually begin to function. The heart, for example, begins to beat. With the introduction of this process, usually sometime between the ages of fourteen and sixteen weeks, the blood of the fetus is actively circulated by the fetus rather than by the mother. It should be noted, however, that even prior to this time there has been no direct connection between the circulatory system of the mother and that of the fetus. Rather, by means of the umbilical cord, the fetus has absorbed blood from the placenta, returning this blood through the same basic mechanism. The blood in the placenta is filtered, and only its nutritive materials and oxygen pass to the fetus.

Another sign of the gradual preparation of the fetus for extra-uterine life is the development of a vast variety of reflexes and general movements. With the passage of time, such activity becomes increasingly common. Tremendous individual differences in the amount of motility are found, some fetuses being active as much as 75 per cent of the time, others as little as 5 per cent. Or again, some may hiccup every day, while others do so only rarely if ever. The indispensable basis of all these functions is naturally the functioning of the nervous system. In all likelihood, the entire nervous system is present by the end of the fifth month, much of it operational. Quite understandably, however, much of the nervous system is not functional until sometime later, in some cases not until well after birth.

As with the previous stages of development, this period is not without its hazards. One such danger, miscarriage, continues during the fetal stage. In addition, there is the possibility that the infant will be born prematurely. Such an event naturally reduces the infant's chances for survival because the various organs and basic reflexes necessary for sustenance are only partially developed. This problem and its psychological significance will be discussed in the next chapter.

INFLUENCES ON PRENATAL DEVELOPMENT

Although there has been much misunderstanding throughout history concerning the basic processes and mechanisms involved in prenatal life itself, possibly even more misunderstanding has surrounded the factors which influence growth and development during this period. Much remains to be discovered in each of these fields, but considerable progress has been made.

Diet. The eating habits of the expectant mother have been subject to many beliefs. The old maxim that a mother must "eat enough for two" is but one of these. Despite the fact that the mother supplies all the food for the growing fetus, it definitely is not true that she must "eat

enough for two." Indeed, overeating can be a major problem in child bearing, placing an extra strain on the mother [13]. Extreme malnutrition, of course, presents a serious problem for both the mother and the developing fetus. This is clearly shown by the high incidence of deformed infants noted in war-ravaged European countries during and after the Second World War [14]. A proper nutritional status of the expectant mother prior to pregnancy is a key factor in satisfactory nutrition during the period of gestation. During the second and third trimesters of pregnancy the quantities of protein, calcium, iron, and iodine, as well as vitamins A, B, and D, have to be moderately increased in order to meet the demands of fetal growth [2, 9].

Of great significance is the proper balance of nutriment eaten by the mother. Within a fairly wide range of total food intake, no great effects are noted. Deficiency in specific vitamins, minerals, calcium, and proteins, however, may seriously affect the developing organism and produce abnormalities which may be permanent [16].

Illness. Any acute diseased condition or emotional strain on the mother, if it lasts, will affect her metabolic rate, oxygen level, and the biochemical composition of her blood. Such a condition, in turn, may interfere with the course of development of the new individual, because some new chemical substances will be transmitted to the fetus's circulatory system despite filtration of the placenta. L. W. Sontag [15] was able to demonstrate that strong emotional reactions are usually irritating to the fetus. The movements of fetuses, for example, increased several hundred per cent while their mothers were undergoing emotional upsets. Even when emotional stress was brief, heightened behavioral irritability of the fetus lasted as long as several hours.

The bacilli of infectious diseases, especially venereal; disturbed secretion of the pituitary, adrenal, or thyroid glands; toxins, including nicotine and alcohol; excessive fatigue; and very young or late biological age of the mother are among the factors which influence and disturb prenatal growth in a variety of ways. The extent of disturbance depends much on the severity and duration of these influences, as well as on the embryo's stage of development and the strengths with which the embryo and the mother are endowed. Furthermore, the family situation and marital adjustment in their total aspects influence either favorably or unfavorably the mother's psychological adaptation to her pregnancy. Fears and anxieties may emerge, especially if the family increase was not intended. Joy and a general experience of gratification result when both parents were planning for the offspring.

If the expectant mother is emotionally mature, and if her husband shows understanding of her status and needs, a favorable atmosphere is likely to be created. This may safeguard her from excessive tension

and stress during this important phase of her life. Generally the expectant mother should live as any healthy, active married woman. She should avoid excesses of any sort but carry on most of her ordinary work and recreation. If her plan of living is well organized, it will provide a balance of work and relaxation [1, pp. 121-122]. If her health is precarious or external circumstances become stressful to her, consultations with an obstetrician or family physician may be of great assistance in avoiding any serious complications.

QUESTIONS FOR REVIEW

1. Give some reasons why psychologists are interested in the physiological development of the human being.
2. Describe what happens in the process of conception.
3. Explain the occurrence of multiple births.
4. Analyze early structural changes after implantation.
5. Describe some structural developments and refinements occurring during the fetal stage.
6. Explain the concept of viability.
7. What behavioral developments take place during the fetal stage of development?
8. What do maternal diet and health have to do with the fetal development?

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The Human at Birth

BIRTH

Birth terminates prenatal development and introduces infancy, a stage of lesser dependence and of many rapid developments.

The process of birth refers to the transfer of the developing infant from the uterine and liquid environment to that of the external world. Although it is impossible to set the exact date for the expected birth, it usually occurs after approximately nine calendar months or close to 270 days of intra-uterine life.

About two weeks prior to birth, *lightening* occurs: the fetus descends into the lower abdominal cavity; the head of the fetus sinks into the pelvis, and its body falls a little forward. After lightening, the mother can breathe more easily because the upper abdomen and chest are relieved of pressure caused by the presence of the fetus. The onset of labor may be preceded by one or all of the following occurrences: (1) false labor pains caused by irregular, intermittent contractions of the uterus, (2) pink or blood-tinged discharge from the vagina, and (3) rupture of the membranes containing the fetus and amniotic fluid.

Birth is accomplished by rhythmic contractions of the uterine muscles at diminishing intervals, which exercise pressure causing the expectant mother to feel pain and to become more aware of the pending birth of her child. The successive and increasingly more powerful contractions rupture the membranes containing the fetus and, after several hours of labor, send the infant into a new state of existence. Three stages of labor may be distinguished. The first is characterized by uterine

contractions which become regular and harder and occur with greater frequency and last for longer periods of time. Also during the first stage of labor, the birth canal widens in preparation for the passage of the fetus. The second stage of labor brings about the actual birth of the child. The contractions are very hard, and the membranes containing amniotic fluid usually rupture during this second stage. In the third stage, the placenta is expelled from the uterus. Since only the hospital will have all the equipment necessary to facilitate the process of birth and, especially, to meet any emergency that may arise during birth, including any special care the infant may need, hospitalization generally is a necessity, especially for the first child. When the first stage of labor—the longest—commences, it is time to inform the family physician or obstetrician and to be ready to leave for the hospital at his advice.

During the stages of labor, the mother should make repeated efforts to relax and to rest between contractions and to bear down with her abdominal muscles while contractions are occurring. If she has little or no fear of this natural process, she is relaxed and therefore requires less analgesic medications. Although the average time of labor approximates sixteen hours, it may last much longer or be considerably briefer. The length of the labor period is usually longer for the first-born and shorter for additional pregnancies. The contractions during the advanced stages of labor are severe and painful: they reach about 10 dols, the normal person being sensitive to approximately 11 dols. The psychological state of the patient can make pains more tolerable or less tolerable.

Many hospitals and obstetricians offer expectant mothers an opportunity to attend prenatal classes. One of the objectives of these classes is to teach the mother about natural childbirth in order to help her overcome fear of childbirth. The mother is taught physical exercises and deep abdominal breathing which will help her relax. At the time of delivery, the deep abdominal breathing will give the unborn baby better oxygenation as well as decrease the mother's pain, for if the abdominal muscles are not tense, there will be less resistance. It has been observed that this practice has reduced the time of labor by as much as two hours.

It may be pointed out that hypnosis is coming into use to accomplish relaxation and cooperation of the mother. In the hypnotic trance she is better disposed to assist at her own delivery. In some cases, such as heart weakness or a preceding spinal illness, hypnosis seems to be the only adequate substitution for the application of analgesic drugs.

After childbirth, it is important that the mother rest for at least five to seven days. It seems to be the trend for mothers to get out of bed within a day or two after the birth of the baby, depending upon the orders of the doctor. Getting up soon after delivery, often referred to as *early ambulation*, seems to have definite advantages. The mother be-

comes stronger much sooner; there are fewer complications, such as thrombophlebitis; and there is less discomfort because normal functions, such as bowel and urinary excretions, are resumed quicker if the mother is up and around. There seem to be very few, if any, disadvantages accompanying early ambulation for the normal, healthy mother, but other conditions, such as a heart disease or a very difficult delivery, may call for a modification of the early ambulation practice [16, pp. 436-438]. There should be very few visitors for the new mother because she needs rest, but more especially to prevent outside infections from being carried in to the mother or baby. She should care for her baby at the assigned intervals and, as a result, get acquainted with the infant. She may read, preferably pamphlets or books on baby care, and in this way be prepared to take complete care of the baby when she leaves the hospital. Many hospitals conduct classes for the mothers in their obstetrical divisions. In these classes the mothers are taught how to care for their babies in such activities as bathing, feeding, clothing, and preparing the formula and diet. Films and other audiovisual aids are used in these teaching programs. The individual nurse caring for the mother can do much teaching, and the mother during her stay in the hospital has many opportunities to ask questions of either her obstetrician or the nurse.

Acquiring a variety of skills in infant care, such as those related to dressing, bathing, carrying, and feeding, gives the mother feelings of adequacy and security—feelings she really needs in infant rearing, especially for the first child. For two to three weeks, a number of mothers need assistance with all other housework in order to have frequent rest intervals, lest they contract an infection due to a lowered state of resistance. Most mothers can assume normal duties within a week despite the postpartum bleeding.

Some statistical results pertinent to the U.S. population will help to illustrate several important trends in the vital-care data of the nation. Table 7-1 points out that in 1955 less than 6 per cent of births occurred outside of the hospital. It also indicates the decreasing rate of fetal and infant death. A most substantial decrease occurred in the maternal death ratio per 1,000 childbirths: 1939, 36.7; 1949, 9; 1950, 8.3; 1955, 4.7; 1956, 4.1. Figure 7-1 points up this continuing trend toward rapid decrease of the maternal death from 1915 to 1955, which is due particularly to the improvements in medical service and its application to most mothers.

As Figure 7-2 indicates, in 1947 nearly four million infants were born in the United States, the largest number in the history of the country until then. During that year, the birth rate soared to its highest point in recent decades. The predicted drop in the birth rate since 1947 has been smaller than was expected, and the decade of 1950 does not ap-

Figure 7-1. Maternal Mortality Rates by Color: U.S. Birth Registration by States, 1915-1955

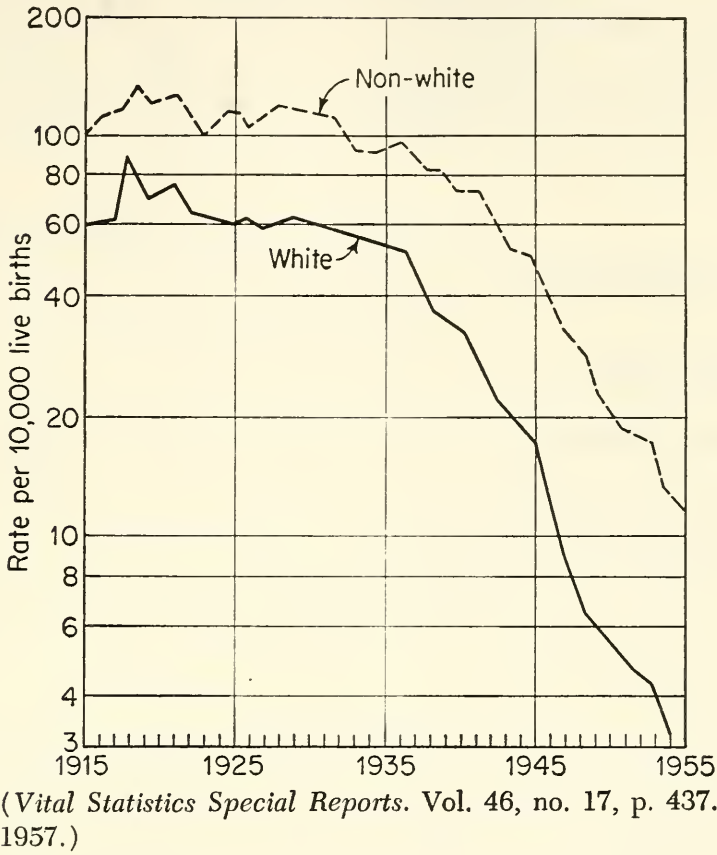


Figure 7-2. Live Births and Birth Rates Adjusted for Underregistration: United States, 1909-1956

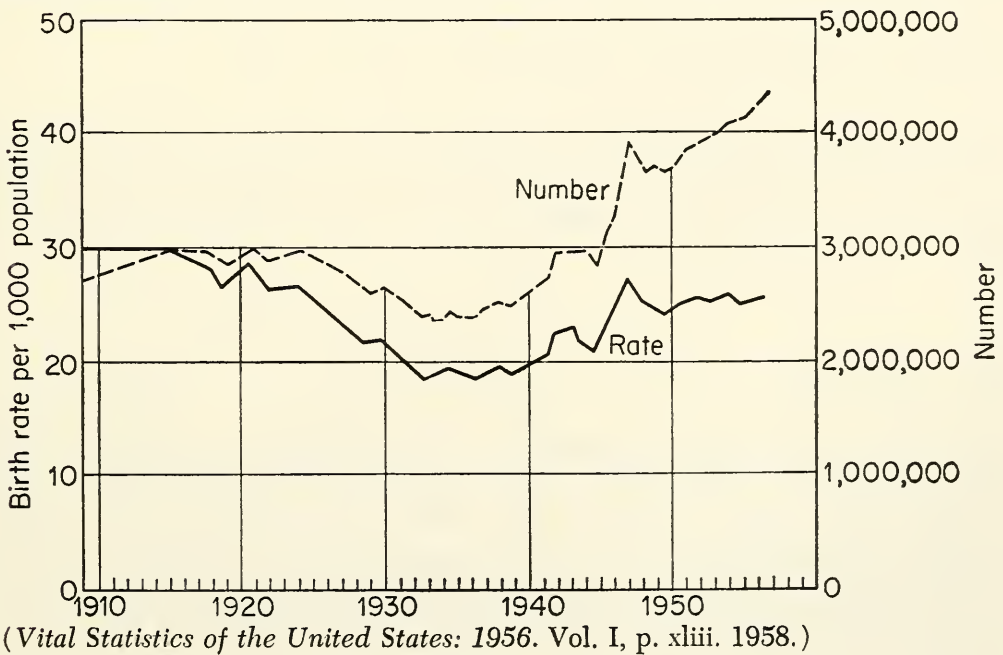


Table 7-1
Life Data: United States

	Year				
	1940	1950	1954	1955	1956
Total births:					
Registered	2,360,399	3,554,149	4,017,362	4,047,295	4,168,000
Adjusted for underregistration	2,558,647	3,631,512	4,078,055	4,104,112	4,218,000
Live birth rate per 1,000:					
Registered	17.9	23.61	24.9	24.61	
Adjusted for underregistration	19.4	24.1	25.3	25.0	25.2
Fetal death ratio per 1,000:					
Total	73,802	81,300	92,144	91,907	92,282
Ratio	31.3	22.9	22.9	22.7	22.2
Infant under one year death ratio per 1,000:					
Total	110,894	103,825	106,791	106,903	108,183
Ratio	47.0	29.2	26.6	26.4	26
Physician in hospital	56%		93.6%	94.4%	95%
Midwife			3.2%	2.9%	
Immature birth 2,500 grams or less			7.5%	7.7%	7.6%

SOURCE: *Vital Statistics of the United States: 1956*. Vol. I. 1958.

pear to present any noticeable decrease in the rate. As seen in Table 7-1, the vitality of the nation continues unabated. Figure 7-3 conveys an idea of birth frequency in each month during the years of 1956 and 1957.

THE NEONATE

Although the neonate is usually well equipped to respond to and make a variety of adjustments to the demands of reality, in the process of birth and sudden exposure to a new environment he first has to struggle for his biological existence. The first phase of infancy is marked by a rapid succession of development in physiological, motor, emotional, language, and apperceptive aspects of growth. At the same time, he at-

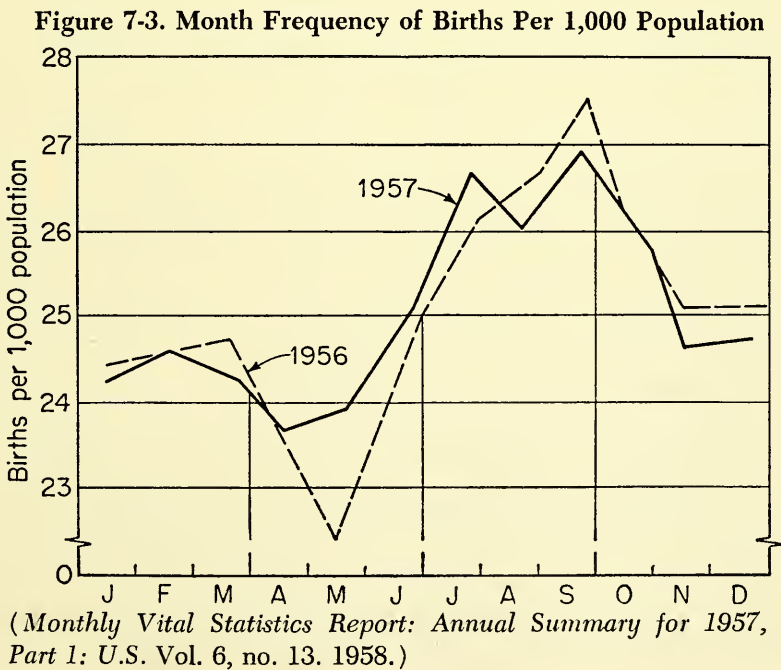
tains a new level of integration and some control over the various organs and functions of his body, and bestows increasing attention upon objects and persons in his surroundings. As a result, the infant expands his behavioral activities, which in turn tend to decrease his helplessness, enabling him to make the first steps toward an interdependent existence.

ADJUSTMENT AND DEVELOPMENTS

The phase of the newborn is primarily a time of adjustment to many new factors outside of the mother's womb.

The birth cry is a reflexive gasping inhalation and exhalation of air across the vocal cords, which are tightened by shock or trauma associated with pressure and the change of temperature. It marks the commencement of oral communication of needs. During the first few weeks of postnatal life, sounds produced by the neonate are but innate or instinctual vocal reactions of varying intensity to sensations of cold, hunger, dampness, pain, and digestive discomforts. Discomforts in the digestive system, e.g., colic, or indigestive discomfort, are one of the main reasons for neonatal crying.

Soon the infant reaches a time of development of new processes and, especially, activities associated with a less dependent existence. It is true that the various physiological developments prior to birth laid a satisfactory foundation for fundamental vegetative processes, yet for several days, if not weeks or months, their organization remains very precarious.



This is especially true of the digestive system and of neuromuscular condition. Whether breast or formula feeding is introduced, physical growth in terms of weight seems to come to a standstill for approximately a week. Usually the neonate loses as many as six or seven ounces before he begins to gain. Thus, the neonatal phase of existence is, in this sense, a plateau stage since loss of weight is not sufficiently balanced by other physical developments. Then, usually during the second week or later, there is a period of rapid growth which continues during the first phase of infancy and, to a lesser degree, throughout the total span of infancy.

During the first phase of postnatal life, the infant gradually learns to cope with his particular environment by means of his senses and motor functions. He is very sensitive to contact stimuli and to changes in his position. The baby quickly makes use of his somesthetic senses. The temperature senses are sufficiently developed, and the neonate soon reacts to cold or warm stimuli. The development of the taste and smell receptors is soon advanced, and they contribute to the infant's process of nutrition. Opening and closing of the mouth occurs spontaneously as part of the infant's effort to suckle. Salty, acid, and bitter solutions usually make the infant stop sucking, while sweet solutions elicit and maintain this reaction. Reaction to visual stimuli is marked by the closing of the eyes at a flash of light to either or both eyes, and by expansion and contraction of the pupils of the eyes in response to decreased or increased light intensity. Acoustic stimuli of usual intensity do not at this phase elicit any particular responses.

In addition to unqualifiable motion, the neonate exhibits a considerable repertoire of behavior, such as "search" movements and sucking, swallowing, rejecting substances from the mouth, yawning, sneezing, holding his breath, and vocalizing. Hands and feet also produce several reflex patterns: the *Babinski reflex*, an upward and fanning movement of the toes responding to stroking of the soles; the *Moro reflex*, a clutching movement of the arms and legs responding to a blow to the surface on which the neonate is lying and to intense sounds; knee jerk; palmar reflex; and rubbing the face. Nursing posture and startle response involve some coordination of several parts of the body [3]. Many of these responses are protective or need-satisfying, and therefore continue to be exhibited in modified forms later. Additionally, parents or observers may notice that the neonate is capable of emotional response. This is marked by pervasive excitement and accompanied by crying and unpleasantness. Relaxation and sleep signify lack of emotionally exciting experience. These are often induced by picking the baby up and carrying him on the shoulder, by rocking him, and by feeding. The quantity, quality, and complexity of sensory and motor responses increases at a considerable speed during the early weeks of postnatal life.

PROBLEMS OF SURVIVAL

Since neonates face many new tasks, most of them, including many full-term babies, are likely to have some difficulties early in their post-natal life. Growth and learning depend in a large measure upon the mode of parental care, which may either satisfy or frustrate the intrinsic biogenic and psychogenic needs. One of the frequent problems related to the major mode of satisfying biogenic needs is feeding. In the hospital or at home, the scheduled feeding hours are often unsatisfactory since the baby is likely to get hungry before the hour, cry and get tired, fall asleep, or show little initiative at the scheduled time. Self-demand feeding may do a better job although it also does not guarantee either sucking satisfaction or the intake of a sufficient amount of food. The infant may show poor response to breast and formula feeding alike; diarrhea and vomiting are not infrequent. S. Escalona [4] and R. S. Illingworth [7] indicate the importance of the method of feeding, noting that the emotional tone with which the baby accepts his food is often traceable to the mother's attitude and her level of relaxation while she is offering him food. Babies can sense tension in the person who has intimate contact with them. Quiet talking to the baby, slow procedure, and attempts to gain the infant's attention are also of considerable significance in the avoidance of feeding problems. R. P. Odenwald [10, pp. 16-7] feels that the process of feeding encompasses the most important moments of the infant's life. It helps to satisfy his sucking urge and offers psychological pleasure and emotional gratification for both the baby and his mother. In the case of formula feeding, the mother should not fail to hold the baby in her arms while he is taking nourishment. There is no substitute for the affectionate care and love so much needed by every child which is expressed at these moments.

Although the approximate average of fluid food during the first year of life is about two ounces per pound of weight per day, there is no set amount of food that must be taken by a particular baby. Quantity depends much on the neonate's level of maturity, which is difficult to estimate. Prematurely born infants are capable of digesting much smaller amounts of food than full-term babies. Prematurity is more frequently a matter of weeks rather than of months. Too often, however, parents believe that certain amounts of food must be taken in order to grow adequately. As a result, they use various techniques to increase the amount and by this magnify discomforts within the digestive system and produce excessive crying. Both the amount of milk and timing have to be flexible to adjust to the changing physiological and experiential stages of the infant. Many experimental studies have been conducted on the genesis of the sucking response. Recently S. Ross *et al.* [12] surveyed fifty-seven

pertinent investigations. Findings point to the possibility of an instinctual drive, the functional activity of which increases when infants are exposed to sucking frustration. The experimental evidence does not point to any definite relationship between sucking variation and later patterns of behavior.

A condition known as *colic* can cause new parents much anxiety. Colic in infants is a condition characterized by a sudden onset of loud and persistent crying with the knees drawn up to the abdomen. The abdomen is tense and distended. An attack may last 1½ or 2 hours, but in some cases it may be practically continuous for many hours. The cause is usually a digestive disturbance due to one or more factors. Among these factors is air in the intestine, which the baby swallowed during feeding and has not eliminated by burping. When the baby is able to expel the air from the rectum, he is usually relieved. Other causes of colic may be overfeeding or an intake of formula that is too rich or too cold. Even the casein in milk can cause a digestive disturbance, and an allergy to a certain element in the diet may lead to so much distress that that type of feeding may need to be entirely changed. Some babies who are allergic to cow's milk have to be fed goat's milk or a milk made from soybeans. At times colic may be due to organic causes, such as appendicitis or intussusception, which may require immediate surgical treatment. If a baby seems colicky and the irritability is not due to hunger, a pediatrician should be consulted and the baby treated according to the doctor's advice.

A more direct danger to the survival of the neonate is birth injuries resulting from instrumental delivery, or from pressure caused by severe contractions or a too narrow passageway en route to birth. When the delivery is complicated, there can occur a fractured bone or even a neck injury or damage to the spinal cord severe enough to cause paralysis and possibly death. The first day of life is the most critical for survival. If the birth process is for some reason prolonged or if sedative drugs are used excessively or are used two or three hours prior to birth, the fetus may suffer a lack of oxygen, producing a state of anoxia; this anoxia, if prolonged, may rapidly damage the sensitive tissues of the brain and even affect the individual's vital functions. Sedatives and analgesics, especially morphine, depress the infant's respiration so that at birth there may be considerable difficulty starting the newborn to breathe. This is even more pronounced if a general anesthetic is administered in addition to sedatives. Great skill must be exercised when these drugs are used. Hypnosis, which has been used successfully in recent years instead of sedatives or an anesthetic, has been much safer for the baby.

The brain injury due to pressure or anoxia may be so widespread as to deprive the individual of his intelligence potential and so produce a

lower intelligence. A. Gesell [5], K. C. Pratt [11], and A. F. Tredgold [13] agree that various brain injuries accompanying birth account for about 5 to 10 per cent of all mental deficiency cases. It might be added that the same causes are conducive to complications and hinder the process of neonatal adjustment.

Premature births are often prolonged and cataclysmic, and subject the infant to added stress. The organism of the premature is very fragile and generally not ready for birth [9, p. 73]. His lungs may not be developed enough to make an adequate exchange of gases, or his digestive system may not be sufficiently developed to utilize and change milk into the proper products for use in cellular life. Secondary infections, such as pneumonia or diarrhea, may seriously threaten the premature baby's life even when he is many months old. Prematurity is the leading cause of death in infants, and mortality among premature infants is inversely proportional to the infant's birth weight. About one-third of infant deaths under one year of age are due to prematurity, and almost one-half of the infants who die in the first month of life are premature babies [14, p. 689]. Figure 7-4 presents the causes of infant mortality under one year and reveals the changes in it for the decade from 1939 to 1949. The decrease of the mortality rate is continuing, and the 1959 rate may compare to the 1949 rate as the 1949 rate did to that of 1939.

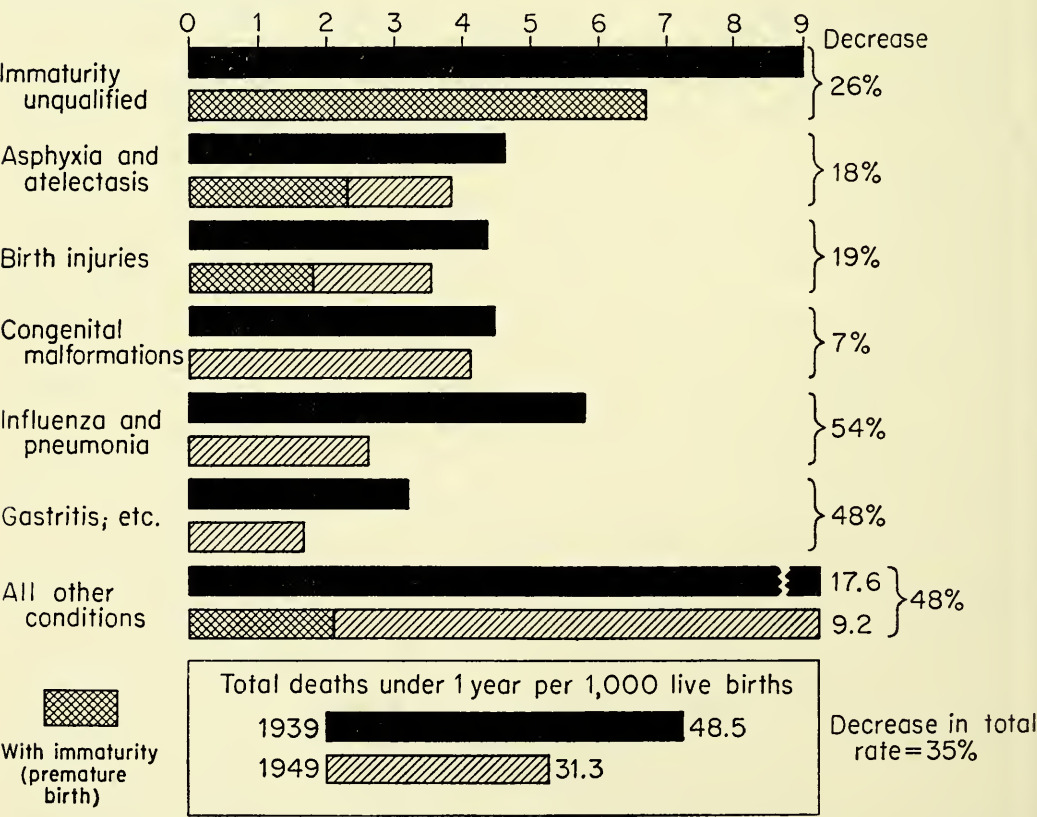
The psychological effects of prematurity are manifold. This fact per se raises the concern and anxiety of parents—a condition which stirs up feelings and attitudes of overprotectiveness. The difficulties in feeding the premature and the small amounts of fluid taken reinforce parental anxieties. Yet studies on the subject suggest that, if the corrected chronological age (CCA) [1] is used as a means to estimate growth and behavior, the premature baby develops satisfactorily. Applying CCA, the age of the infant refers to the time of conception rather than of birth. Thus, a premature infant born at thirty-five weeks of gestation would have an age credit of five weeks whenever his behavior or maturity was appraised in terms of age norms. However, the overprotective attitude formed toward such a child may persist. It will tend to interfere with the normal course of his self-development. The need for assistance from others may become deeply engrained in the attitudinal system of the individual. Thus, the psychological impact on those who are born prematurely often continues throughout childhood and later.

The possibility of infection of various kinds is considerable since the immunity level of the young individual is low. As a result, cases of infection and complications are more frequent than in later life. Epidemic diarrhea in newborn infants is a serious condition which often results in death. For an average of 40 per cent of infants, epidemic diarrhea is fatal [14, p. 790]. Pneumonia in neonates is serious, but with modern methods

of treatment chances of survival have increased, barring other complications. Syphilis is not as prevalent as formerly, since the discovery of penicillin. Adherence to hygienic regulations, especially by mothers, is a major preventive of disease during the early stages of postnatal life. Prenatal education in baby care by hospitals and other institutions is another major factor in securing the biological welfare of the infant by preventing the “experimental” trial-and-error approach in the management of the first child during his first and most crucial year of life.

There are, at times, certain physiological conditions and congenital malformations present at birth which may threaten the infant’s life. One normal physiological condition which presents some danger to the newborn infant is the mucus in the infant’s mouth which he may aspirate into his lungs as he breathes. Immediately after birth, the obstetrician or nurse sucks out the excess mucus from the baby’s mouth and throat before he begins to breathe, in an effort to prevent aspiration of mucus into the lungs. The baby must be watched closely in the nursery for any signs of difficult breathing or excess mucus.

Figure 7-4. Infant Mortality: Main Causes by Sixth Revision of the International Lists: U.S., 1939 and 1949



(Main Causes of Infant, Childhood and Maternal Mortality, 1939-1949. U.S. Department of Health, Education, and Welfare, Children’s Bureau Statistical Series No. 15, 1953.)

There is a hemolytic condition known as *erythroblastosis fetalis* which may be present in infants whose blood type is RH+ and whose mothers' blood type is RH—. In such cases, the mother's blood forms antibodies which react to and cause a breakdown of the baby's blood. Shortly after birth, the baby becomes jaundiced, and if the condition is severe may need to have exchange transfusions in which some of his blood is withdrawn and replaced with other blood. At times even the transfusions cannot save the infant.

Among the more common congenital defects which present danger to an infant's survival are *hydrocephalus*, *spina bifida*, and heart defects. Hydrocephalus eventually leads to death if untreated, and even with surgical intervention the life expectancy is short. Spina bifida, which is a growth on the spinal column, occurs in various forms. If it is a kind which involves the spinal cord directly, little can be done to prolong the infant's life, which usually ends as a result of secondary infection. Some kinds of spina bifida can be removed by a surgical procedure. Heart defects also may be various in kind. Some of them can be corrected, providing the infant lives long enough and can tolerate surgery. It may be as long as one year before surgery can be performed, and during that year may occur many episodes of difficult breathing and upper respiratory infections to which this type of infant is especially susceptible. There are many other congenital malformations equally dangerous but less frequently seen, such as an abnormal opening in the trachea or a malformed digestive tract.

Attention has recently been given to babies born of narcotic-addicted mothers. It has been observed by obstetricians and pediatricians that babies born of addicted mothers manifest withdrawal symptoms after delivery, the severity of which depends upon the amount of drug taken and the time of the last dose prior to delivery, as well as on the frequency with which the mother was accustomed to take the drug. Many babies of addicted mothers have died as a result of withdrawal reactions, especially if the baby's underlying difficulty was unknown and therefore untreated. With treatment, the chances of survival are fairly good, and the baby can be cured of the addiction if he survives the withdrawal reactions. Whether a baby cured of addiction will later in life be emotionally unbalanced and resort to narcotics is as yet unknown to science.

INDIVIDUAL DIFFERENCES

After birth, individuals differ among themselves in all observable aspects. Much significance is usually attributed to differences in weight. The neonate normally is close to 20 inches in length and weighs approximately 7½ pounds. In 1956, the median weight for all newborns was

3,310 grams. On the average, female babies weighed 120 grams less than male babies [15]. If a neonate weighs less than 2,500 grams or has a gestation period of less than thirty-seven weeks, he is conventionally considered premature. Many hospitals retain such infants until they reach the indicated weight unless they are triplets or twins. In multiple births, the average weight is noticeably lower than 7 pounds, while in some cases single-birth individuals have been as much as double the normal weight. Amounts of sleep, vocalization, the characteristic positions they assume, amounts and patterns of activity, eating patterns, and thresholds of sensitivity and acuity to various sensory stimuli all differ in a variety of ways, from one infant to another. One newborn infant may require feeding every $2\frac{1}{2}$ to 3 hours, while another infant may easily wait for 4 hours. Differences in irritability and response to external stimuli are often very marked. One infant may be highly irritable and awaken and react with fretfulness to the slightest touch or light. Another infant may sleep undisturbed by a slight touch and rouse only momentarily to a light. These reactions indicate temperamental differences which will influence these individuals' adjustments all through life. Even at birth one can get a preview of the individual's body build. The infant may have small hands and feet, short neck and rounded body. He may be small-boned and tend toward a thin structure, or he may be a sturdy muscular type. Infants in the same family may differ, even fraternal twins. One twin may awaken frequently at night and have episodes of colic while the other sleeps peacefully. Everyone is familiar with the terms "contented baby" and "fussy baby."

As infants grow older, more and more differences can be seen. The ages at which teeth appear, the child first stands, takes his first steps, and speaks his first words may vary as much as six or eight months from one child to another. One infant may be advanced in one aspect of development, such as creeping, standing, and walking, but be slower in another area of development, such as speech. At the neonatal stage and later, baby girls are usually a little further advanced than boys in various aspects of development. Their ossification is on a higher level; locomotion, teething, and progress in vocalization all occur earlier. The rate of mortality is also lower for both premature and full-term girls. Female babies also show more resistance to infection, colds, and other noxious influences.

QUESTIONS FOR REVIEW

1. When should one expect birth, and what are the main signs indicating its imminence?
2. Why should expectant mothers consider the hospital an advantageous place for childbirth?

3. What are the more frequent difficulties in an infant's early postnatal adjustment? Explain.
4. Describe what happens to physical development during the first two weeks of life.
5. List kinds of behavior of which the neonate is soon capable. Indicate their nature.
6. Explain prematurity and its effects on postnatal adjustment.
7. Discuss individual differences at the neonatal stage, including differences between boys and girls.
8. Why should maternal training in baby care be advocated? Does this apply to all mothers?

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SELECTED FILMS

Biography of the Unborn (16 min) Encyclopaedia Britannica Films, 1956. Developmental events from conception to birth are explained.

Heredity and Family Environment (9 min) McGraw-Hill, 1955. The basic roles of heredity and environment are explained and illustrated by picturing their effects on 1 individual.

Heredity and Prenatal Development (21 min) McGraw-Hill, 1950. Step-by-step presentation of cellular growth, transmittance of inheritance to offspring, embryonic and fetal differentiation, and newborn's activity.

Human Heredity (18 min, color). Churchill-Wexler, 1956. The roles of heredity and culture in determining the traits and characteristics of human beings are explained and illustrated by means of animated sequences.

SECTION

IV

INFANCY

ALTHOUGH autogenous developments during infancy are preconditioned by intra-uterine growth, there takes place much differential and behavior organization affected by internal environment and parental approach which will set a pattern and continue to affect later phases of growth.

Throughout this period, rapid growth encompasses physical, motor, perceptual, emotional, speech, and intellectual factors. Early infancy is marked by gains in control over large muscle groups and various parts of the body; later infancy is characterized by the acquisition of locomotive and speaking facilities which serve as communicators of personality qualities and traits. Expanding self-awareness and ego formation are usually accompanied by a marked resistance to parental control and strivings for autonomy. Before the third year begins, foundations of a growth pattern are laid for further development in most aspects of human self-realization.

CHAPTER

8

Early Infancy

THIS FIRST major stage of infancy extends from the time when the infant begins to make good adjustments to the tasks of satisfying his biological needs to the time when he takes his first steps independently and begins to understand and use speech as a means of communication. For the majority of children, this happens at the thirteen- to fifteen-month level; for some, later or before. Throughout this stage, the developing individual depends almost wholly upon parental care and gratification of needs.

MOTOR DEVELOPMENTS AND CONTROL

Infancy is marked by rapid physiological, sensory, perceptual, and motor developments and by a considerable increase in weight and height. The control over large muscle pairs and various parts of the organism is gradually advanced. Since muscle control is governed by cephalocaudal sequence, the balance of head movements is established before trunk and extremities reach the same level of development. Crawling movements may produce some motion sidewise or backwards at four to five months; creeping and standing are usually established at nine to ten months. At six or seven months, the baby is able to grasp, hold, manipulate, and put into his mouth small objects. He best observes objects and persons in motion, and such perception may be lost when they cease to move. The span of attention gradually lengthens. Motor activities help the baby partially to satisfy his curiosity and partially to enhance rising intellectual and social interests, the advancement of which is a major characteristic of the later phase of infancy.

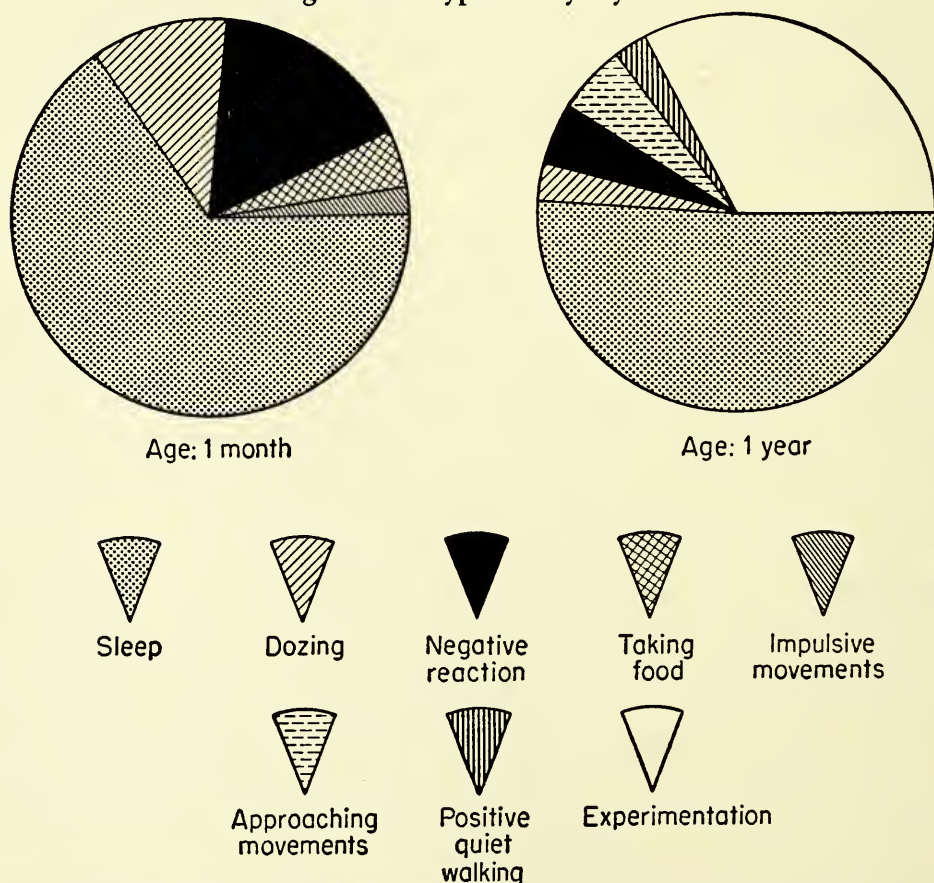
Charlotte Buhler's exploration [1] of routine behavior and daily cycles during the first year of life is vividly illustrated by an analytic cinema

study of a single infant from the 15th to the 235th day of age in his home environment by A. Gesell and H. M. Halverson [7]. It depicts and interprets his total behavior at this age. A gradual and progressive trend in growth from week to week was hypothesized and shown.

Prime experiences form a basis for conditioned responses to persons, objects, and situations which earlier failed to produce emotional changes. One example of this emotional change is crying. By the time an infant is six months or older, crying will often be caused by external irritations, such as excessive or abrupt handling of the baby, or by physical restraints; also by psychological causes, such as a desire for attention or a fear of something. In some cases, crying may have decreased at this stage to mere fussing or vocalizing. Previously the small infant usually cried because of an internal stimulus or need, such as discomfort or pain within the digestive system, and as much as two or three hours of the day was spent crying.

Some specific emotions can be seen early in life. One is anger, which may be provoked in some infants at as early an age as two or three weeks.

Figure 8-1. Typical Day Cycles



(Charlotte Buhler. *The First Year of Life*. Pp. 144-148. New York: Day, 1930. By permission.)

A. T. Jersild relates experiments with infants under two weeks of age in whom external irritations were produced and whose reactions were then observed [6, pp. 16-17]. The experimenters held the babies' noses and restrained the babies' arms. Most of the babies were nonresistant when their arms were restrained, but a few babies gave evidence of rage or resistance. When the babies' noses were pinched for five to fifteen seconds so as to prevent breathing, the most frequent reaction was an attempt to withdraw by drawing the head back and arching the spine. There were practically no attempts to defend themselves by waving their arms nor any demonstrations of anger.

After a few weeks of life, annoyances caused by bathing and dressing arouse anger and crying in the infant. As the baby grows older, he meets with further occasions of frustration, and he is able to comprehend some aspects of situations, both of which may contribute to more frequent occurrences of anger. By the time the infant is nine months old, he becomes angered by his own ineptitude when he cannot perform a certain task which he desires to accomplish. An older baby may succeed in pulling himself to a standing position and then become angered and cry when he does not know how to get back to a sitting position. A young baby expresses his anger in a generalized way, as by throwing things or just crying and kicking; but as his comprehension develops, his anger is directed at whatever object he perceives as the source of his annoyance.

Fear is an emotion experienced less often than anger by babies because those incidents which cause fear occur less frequently than do the daily annoyances which incite anger. Generally, fear is caused by those stimuli which startle the baby. Sudden noises, strange objects or persons, objects associated with pain, or sudden removal of support may arouse the emotion of fear, depending somewhat upon the child's comprehension of the situation. A baby expresses fear by crying, withdrawal, or seeking refuge in the arms of his mother. Fear is learned, often by conditioning. J. B. Watson and R. Raynor [8] give an excellent example of this fact in an experiment in which a baby was presented with a furry animal. The baby had no fear of the animal, but when the baby reached for it, the experimenter made a loud noise behind the baby. This action was repeated several times, and each time the baby gave greater signs of fear. It was further observed that the fear was transferred to other furry objects.

LEARNING NEW RESPONSES

Gradually, as postnatal maturation takes place, the sensory experience becomes more meaningful and the sensory data are more adequately

translated into perceptual apprehension, leading to preference for activities and experiences which more directly serve biological or social ends. As the experiential memory increases, apperceptual evaluation takes place and the infant recognizes foods by color and smell. Distinct reaction may also be shown to persons in the family. Likes and dislikes show greater consistency, and may be seen as laying the foundation for the development of attitudes. Observations and retention of what has been perceived increases. Learning contributes to experiential foundations for further differential responsiveness. The autogenous development is more and more supplemented by exposure to learning experiences. At approximately ten months of age, the infant has a repertoire of activities, sounds, and other self-expressive devices which enables him to imitate others successfully. Imitation of other human individuals, especially of the mother and father and of older siblings, is a dynamic impetus for further development of language, emotions, and interests. It lays the foundation for other peculiarly human activities. With the progress of this stage of development, the sensorimotor coordination improves, and the newly established motor patterns serve the purpose of a thorough exploration of close environment. This exploration lays a foundation for contact and acquaintance with the more distant environmental factors.

During this phase, the infant begins to understand various nonverbal forms of communication. Although he cannot speak or apprehend the meaning of the oral self-expression of others, he perceives and interprets many occurrences around him. He learns to attach some meaning to gestures, tones of verbalization, and the movements adults exhibit. The infant's apperceptive function is naturally limited in accuracy and perspective, and there is a methodological difficulty in appraising the particular meanings and inferences of his eager observation. He senses his own needs and sees his mother as a chief component of his experience. If the mother shows considerable difficulty in recognizing some of the baby's expressions and reactions, it may be inferred that the baby has as much or more difficulty in understanding her responses. The infant's capacity to learn helps him to make various applications of action after the first few months of life. Eliciting his mother's responsiveness to his needs by means of his vocalization is one of the key areas of application. When he is on his mother's shoulder, crying disappears and many discomforts become tolerable to the baby. Crying for attention is often noticed before the infant reaches six months of age, sometimes as early as the two-month level.

EMOTIONS AND NEEDS

Emotional growth during this phase of life is rapid and manifold. Its initiation is due to maturation and environmental conditioning. As the

infant begins to understand the meaning of things and relationships more clearly, he will be able to react with emotional tone proportional to his depth of perception. Diffuse excitement and mass motion in response to any strong stimulation, which is present at the neonatal level, now differentiates into a variety of affective experiences and behavior patterns. The vital feelings, such as anger, rage, fear, delight, and affection, arise in the early months of life and assume important self-expressive and self-assertive roles.

Pleasant emotions may be seen in babies, two of which are satisfaction and delight. In the small baby, satisfaction is the result of physical contentment. As the baby grows older, he is pleased by tickling or being talked to or played with by another person. The older baby derives great joy and delight when he accomplishes a difficult task, such as turning over, raising himself to a standing position, or climbing up a piece of furniture. The smaller baby expresses his joy by cooing or smiling, while the older baby laughs out loud. Great joy and delight may also be accomplished by kicking, running, and jumping.

Affection is another of the pleasant emotions, and it can be seen before the eleventh month of life. At this time the baby gazes at another person's face, kicks, smiles, and waves his arms, and otherwise shows that he is not indifferent to those whom he loves. From about the twelfth month on, the baby becomes more partial in giving his affection. Members of his family are the foremost objects of his love, though he may quickly make up to strangers after he becomes accustomed to them. At about this age the baby will stretch his arms toward the loved one and will pat and play with the loved one's face. Inanimate objects may also be objects of the baby's affection. The child's affections grow as he comes in contact with more people who are good to him. One important principle of the development of affection is that the baby or person must be loved in order to learn to love. Lack of affection causes a baby or child to withdraw into himself; too much affection, "smothering," may lead the child to become self-centered. It is believed that a baby learns to love others before he learns self-love [4, pp. 248-252].

Many new emotional responses are learned through imitation of other children and adults, especially during the latter part of infancy. The mother's fear in meeting a stranger or reacting to a storm are situations not merely observed by the infant but also absorbed by him. Generally the infant exhibits a strong tendency to react affectively in expressing his needs and desires. Affective responses also accompany many trivial deprivations, disappointments, and signs of his own ineptitude. Muscular contractions and crying are the usual responses to intense stimulus and emotion.

A baby's needs become progressively more numerous and complicated as he develops physically, mentally, socially, and emotionally.

As the baby develops, he needs opportunities to use his new skills. The simple needs of infancy include food, clothes, and affection, but the baby soon requires more than these essentials. He needs opportunities to explore new objects, to test his own abilities, and to express himself. The baby's social needs are fulfilled in the family circle where he makes his first contacts with other human beings. Here he receives encouragement and stimulus for self-expression. When the baby has opportunities to grow and use his abilities as an individual, he achieves a security which becomes the basis for further development and maturation.

LANGUAGE FOUNDATIONS

Speech is a capital ability of paramount importance involving many signs and symbols learned through perceptual observation and practice. Language is the chief vehicle by means of which man communicates his needs, ideas, feelings, and desires to other individuals. Barring infrequent exceptional cases, the neonate possesses all the equipment and potentials needed for the gradual acquisition of the various forms of language and speech communication.

During the first four months of life, vocalization consists of crying and sounds caused by the spontaneous movements involving the vocal mechanism. On the average during the fifth month, the infant attains some voluntary control over the flow of air through the vocal cords and begins to produce "explosive sounds." As soon as his control is improved and rhythm is introduced, this form of vocalization is referred to as *babbling*, or *lalling*. Like crying, babbling is a preliminary to speech and is extensively practiced from six to ten months of age. The infant seems to derive much delight and pleasure from listening to his own sounds, the repertoire of which is gradually expanded until at about the one-year level *baby talk* is achieved. Babbling, as well as baby talk, is produced through combinations of vowels with consonants, such as "mah," "bah," "hah," "ugh," etc. Baby talk implies a certain variety of these, including a clearer duplication and indistinct imitation of adult articulated sounds resembling certain words and phrases. A satisfactory imitation of words produced by others is a major step toward speech. Two other major steps consist of the understanding of gestures and the association between the articulated sound and its meaning. Some progress in both steps is usually observed during the late part of this stage beginning with the eight-month level.

At present, it is generally agreed that the infant responds and understands gestures long before he is able to comprehend words. Pantomimes and various expressive movements are often accompanied by vocal

expressions and supplement them. The infant points to objects long before he can ask for them. Only during the years of preschool childhood does the individual learn to combine words into complete and meaningful sentences. The need for expressive movement is then progressively reduced, but it can never be fully abandoned. It remains as a modifier which amplifies communication.

Speech organs mature and become ready to function at approximately the one-year level. Hence, many speech developments are initiated early in the second year.

Language communication, such as crying, and movements of the eyes, face, and hands precede the qualifiable steps of socialization when some relationship or adjustment to others beyond the parental dependence of the neonate is attempted. At the two-month level, the baby turns his head in the direction of a human voice and shows relaxation when soft music is played. At the three-month level, the infant responds with a smile to the smiling mother, and he may cry in order to secure human attention. At the eight- to ten-month level, the infant makes another distinct step in relating himself to others: he reacts appropriately to friendly, affectionate, angry, or scolding expressions. At this age he recognizes familiar persons and welcomes their approach; he exhibits signs of fear and eventually cries when strange individuals approach or watch him closely. Such behavior patterns offer much joy to parents, who are frequently surprised with new modes of reaction.

PLAY AND REALITY

A playful attitude and curiosity mark the infant's approach to reality in most of its aspects. As the infant grows and matures, there is a constant increase of attempts to handle toys—in fact, to handle any objects in his immediate environment, including parts of his body. From the age of four months on, it is good for the infant to be provided with rattles and celluloid animals, and later with some household articles that are sufficiently solid, large, and bright not to be swallowed. These train the child's senses and initiate and promote his insight into the fundamental laws of nature.

With progress in developing sensorimotor coordination, understanding, and imagination, simple forms of object manipulation become more complex and goal-related. Regularities in manipulation and patterns of activity begin to appear toward the end of this phase and set the stage for advancement in the infant's multidimensional approach to reality factors. At the ten-month level, the baby makes the important observation that objects fall down and produce noise. For some time he may eagerly enjoy this discovery by letting toys, spoons, and foods fall.

HEALTH AND ADJUSTMENT

During this early phase of life, most of the homeostatic mechanisms begin to increase in efficiency. This tends to decrease their original lability and fluctuation. Trivial variations in temperature, diet, or other external conditions begin to disturb less the basal metabolic rate, hydration, or the rate of heart beat. Throughout infancy the somatic equilibrium continues to show substantial variation. The same applies to diet. An infant's appetite may vary greatly from meal to meal. However, the healthy infant is likely to compensate for nourishment loss at another feeding.

The first stage of infancy is noted for various disturbances in health and difficulties in adjustment. The latter often relate to parents, especially to those who have not received some kind of child-care instruction. Some parents are not emotionally ready to change their life and organize their time for efficient infant care. A mother who is tense and anxious while feeding her baby can transmit this emotional disturbance to the baby, who in some manner seems to sense his mother's uneasiness and also becomes tense. This tension may cause the baby to have digestive disturbances so that at times he may cry excessively and even refuse to eat. Sensitivity to colds and frequent fever reactions may often take serious forms and lead to eczema, earaches, pneumonia, prolonged vomiting, diarrhea, or gastritis. Rapid physiological development, excessive crying, and unsatisfactory care may result in various skin rashes. Heat and allergy rashes are frequent at this phase of life.

Nutrition is an aspect of health that is still misunderstood by some parents. If the baby is above standard weight, the parents conclude that he is healthy, whereas in reality he may be in need of such nutritive materials as iron and vitamins. It is frequently the overweight babies who succumb to upper respiratory infection. In the United States and other countries, public health departments do much to protect citizens against unsanitary food and water, which could be the source of various diseases.

Vaccinations, especially for smallpox, diphtheria, whooping cough, poliomyelitis, and tetanus, are usually given to babies after they are three months old. Booster doses to continue protection against these diseases may begin at three years of age. These vaccines have done much to protect babies and young children from the more serious communicable diseases. When a baby or child has been exposed to one of the other communicable diseases and the physician fears the disease may be particularly harmful to the child, he may administer gamma globulin, which will give the child temporary protection and either prevent the disease altogether or lessen its severity.

During the baby stage of life, body temperature is unstable and the baby's temperature may rise as high as 105 or 106 degrees when he has an infection. This is often seen when the baby has upper respiratory infection. Hence, it is important for the mother to know how to take the baby's temperature and how to get the baby's temperature down. Sponging the baby's body with tepid or lukewarm water, a limb at a time, is recommended in order to maintain the baby's temperature under 104 degrees until it is possible to contact a doctor and he arrives. It is especially important to know how to control temperatures because high temperatures may cause convulsions and even brain damage. Babies are especially susceptible to infection, and should be protected from cold drafts. Overdressing or overheating the baby can be just as bad as not dressing the baby warmly enough. Babies should be dressed according to the temperature of the environment.

Since approximately ten months of age is the time when creeping or standing is established, there should be some anticipation of possible baby motions in order to protect the infant from minor as well as major injuries. Thus the older baby needs even more supervision because he is now capable of creating dangers for himself. The need for protection continues throughout infancy and childhood although the type and amount will vary.

QUESTIONS FOR REVIEW

1. How can growth during the phase of early infancy be characterized?
2. What are the emotional and social responses which emerge during this stage of life?
3. Describe cooing, babbling, and baby talk and explain the differences among them.
4. Define play and indicate its role at this stage of development.
5. What marks the termination of this stage? Do other sources distinguish this level of maturity from the preceding and following ones?
6. What do parents have to exhibit and provide during this phase for stimulation of developmental potentialities?
7. Explain what a mother has to do when her baby shows signs of temperature.
8. What can parents do to protect infants from hurts in the latter part of this stage of development?

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CHAPTER

9

Late Infancy

THE LATER stage of infancy, from approximately fifteen months to two and a half years of age, is marked by a considerable expansion of the infant's environment, spearheaded by increases of locomotion, speech, and understanding of fundamental relationships. During this phase, many additional controls over bodily functions and environmental factors are attained. Gain in control decreases infantile helplessness. Newly acquired abilities also play a major role in assisting the development of individual initiative, assertiveness, and orientation. Awareness of individuality is, later in this stage, manifested by expressions of self-reference. Many features of childhood emerge and gradually overshadow some baby characteristics. Toward the end of this phase, the infant may look much like a child, yet his maturity level and personality organization remain infantile, and will be reorganized during the course of the third year.

CHANGES IN PHYSIOLOGICAL DEVELOPMENT

Physiological growth slows down slightly as compared with the previous stage, yet it is still rapid. If during the first year the average infant gained from 14 to 16 pounds in weight and added 9 to 10 inches in height, the second year will bring an approximate increase of merely 5½ pounds and 4½ inches [11]. A proportionate increase of weight and height is a major index of both development and health. The infant continues to remain susceptible to a variety of psychosomatic disturbances, including fever and skin irritations. At the end of infancy, the bodily proportions are still far removed from the adult relationships of the various parts of the body. The body structure is marked by an extremely large head since the brain weight exceeds 75 per cent of its adult

weight, while the lower extremities are least advanced. The lowering structural change at this phase permits the infant to make a fast advance in the organization of new behavior traits and the exhibition of many human qualities and abilities. Thus, the neuromuscular system matures and lays the foundation for completion of the infant's sensorimotor development and coordination in its phylogenic aspects. Running, jumping, climbing, turning, and balancing are rapidly advanced during the second year. From now on, facility and speed in performing various motor and play skills will depend chiefly on perceptual maturation and practice. Perceptual development is an internal and mental growth which depends on the adequate functioning of all human senses, especially the distance senses. Perception is a process of cognitive interpretation by inferring sensory data's meaning and value to the individual as a whole.

IMAGINATION AND UNDERSTANDING

Interest in and partial understanding of pictures and picture booklets now emerge and develop at a rapid rate. Whenever booklets are available, the infant makes frequent attempts to turn their pages and seems to enjoy their contents. Many delightful experiences result as he makes association between pictures and his previous observations of his toys and TV. The first spurt of imaginative growth occurs at the mid-phase. The qualities and activities of living and of individuals are vividly apperceived and readily attributed to the inanimate representations of reality. Television programs designed for children, where birds, dogs, and other animals act as human creatures, appeal to infants at this stage and serve as stimuli for imitational representations. Nowadays much is learned at this stage that in earlier generations was acquired at a much later age. Through imitation the child assimilates language, social, and other forms of complex human self-expression, as presented through various media of present day communication.

Recently, in her thorough study of infant abilities, Ruth Griffiths [6] developed and applied intelligence tests for babies. The study gives evidence that despite some difficulties in testing the very young, the diagnostic appraisal of mental abilities can be satisfactorily performed and the results are useful as a basis for differential treatment of exceptional children. The earlier-constructed Buhler-Hetzer tests [3] and the Cattell Infant Intelligence Scale, a downward extension of the Stanford-Binet to include subjects as young as three months of age, may also be used by experienced examiners for the purpose of appraising various neuromuscular, perceptual, and intellectual abilities in their earliest stages of development. All infancy is included in Gesell's *Developmental*

Schedules [5] based on normative summaries of motor, adaptive, language, and personal-social behavior.

At this stage, intelligent behavior is largely limited to sensorimotor coordinating functions. The infant does not know at first how to separate the effects of his own actions from the qualities of other objects or persons. He lives in a world without permanent objects and without awareness of the self. His behavior organization is prelogical [9]. Gradual appearance of symbolic representation takes place especially toward the end of this phase. A search for names and identity commences.

EXPLORATIONS OF ENVIRONMENT

Throughout this phase, the infant eagerly engages in the process of exploring and becoming familiar with his own environment in many of its aspects and vicissitudes. Infants make repeated efforts to get anywhere and everywhere, in and out, up and down. They make use of chairs and other household furniture in order to climb up and reach upper sections of their homes. All drawers, boxes, cans, and bottles are, whenever possible, opened and their contents examined. Eagerness to manipulate external objects in all known ways becomes more pronounced as the stage advances. All household tools and objects, toys, and paper are played with. Considerable regularity and pattern of activity becomes obvious. Through pushing, pulling, sucking, throwing, and banging, the infant stimulates his senses, engages his muscles, and as a result derives much enjoyment, fun, and surprise. He has a tendency to keep a variety of objects with which he comes in contact in his possession, and uses them for old and new activities for which his ingenuity is great indeed. Neighborhood exploration may also be advanced to a significant extent.

By means of locomotion the infant also slowly increases his estimation of distance and depth. For example, he readily observes a change of line or color, but he needs an accumulation of experience in order to relate these to distance. Also he must learn that in many instances a surface continues unchanged although a color or line alters. The many difficulties young children have in perceiving depth on the basis of minor changes in line, shading, and object interposition are puzzling to adults since perception of distance and depth is so habitual and seemingly natural to them.

At this stage, the infant engages in play with other children, if they are ready to contribute the lion's share of cooperation, and he may learn to enjoy infants of his own age, especially when such contacts are frequent. Parallel play and independence in play activity may be seen as the first sign of a growing desire for autonomy and increased self-expressiveness in accordance with the infant's own needs and desires.

The variety of explorative activities in which he engages gives the impression that the age of toddlerhood is well advanced and his reservoir of knowledge greatly enriched.

SEARCH FOR NAMES

Entrance into the speech level coincides with the beginning of the second stage of infancy. To partially or completely articulated sounds, the child now attaches either individual or common meanings. The infant first learns several common nouns, often the names of a few people and things; then several verbs are added. Later on he occasionally injects simple adjectives, adverbs, conjunctions, prepositions, and much later personal pronouns and articles. The single-word sentence sometimes is well established before the baby is one and a half years of age. At this age, phrases and brief sentences are often introduced. Infant speech is self-centered, and is chiefly used to communicate more fully his own needs and desires. In view of the fact that language and speech are frequently used interchangeably though denoting distinct concepts, it seems well to explain each term and to illustrate the difference between these two major concepts. First, not all sounds made by the human individual may be classified as speech. Vocalizations, in the form of cries and explosive and babbling sounds, and the use of pantomimes form preliminaries to speech [7, pp. 171-172].

Two basic criteria should be applied to determine whether or not the infant at this stage is capable of speech: (1) the level of articulation, and (2) the association of specific meaning with the articulated sound. Articulation consists in interrupting and modifying the sound waves as they pass through the throat, larynx and pharynx cavities, mouth, and nose by intricate movements of the vocal cords, tongue, soft palate, teeth, and lips. Comprehensive pronunciation involves a fine coordination, precise timing, and delicate interaction of these and other organs forming the so-called speech mechanism. It is, therefore, not surprising that speech difficulties are frequent at this stage, when basic speech developments take place.

Though baby talk may be understood by parents or others who are in constant contact with the infant, it usually does not meet both criteria. Thus, if the baby says "Mama" to every woman, or his association to "toy" is general, the specific sound-object association has not as yet taken place. The factual association of articulated sound with object or person is fundamentally different from other forms of communication shared with certain other mammals. The beginnings of the true speech level are subtle and can be readily misinterpreted by both parents and outside observers, including those who are aware of the main criteria.

The infant does not readily respond to adults in terms of their requests. This makes it difficult to see whether or not he possesses certain abilities.

In the late part of this phase, the naming stage is usually introduced. It is marked by the frequent question, "What's that?" The infant begins to realize that various objects and persons have names, and he wants to know them in order to promote his conceptual familiarity with them. As J. Piaget often points out, this represents the first major step in a realistic approach to various environmental factors [9].

DEVELOPMENTAL TASKS

The late phase of infancy is marked by new developments and approaches as the infant relates himself to the home environment. Certain tasks may be distinguished.

1. *Taking solids.* Early opportunities to get some solids in small quantities and a gradual increase in their variety may help the infant to develop enjoyment for new textures and tastes. Otherwise, some children will tend to restrict their repertoire of foods to such a degree that a balanced diet may become an impossibility. An increasingly competent use of chair, cup, spoon, and dishes may be expected as the phase advances, provided the infant has ample opportunity to learn.

2. *Physical control.* Improving coordination and neuromuscular control plays an important part in the child's adjustment since it promotes confidence in handling himself in a variety of home situations. A well-furnished home and age-related play materials provide opportunities for eye-hand and hand-foot coordination. Experimentation with climbing, walking, running, and dancing plays a part in this. Now the infant has to advance his control over the fine muscle groups.

3. *Understanding communication.* Learning to interpret and use speech communication is a main way toward self-expression and adjustment to other people. It is good for the child if parents take pains to use simple words and phrases distinctly. A correct interpretation of basic concepts, such as "Yes" and "No," "Come" and "Go," and "Take" and "Give," helps the infant greatly in recognizing the do's and don't's of his environment. It represents the first steps toward further levels of discrimination and personal use of these and related concepts.

4. *Learning toilet control.* Acquisition of toilet control is a characteristic task of late infancy. Understanding of basic concepts and gestures facilitates cooperation in terms of want, procedure, and place. Neuromuscular readiness and favorable emotional ties with the mother are key factors in toilet-training success. While only some infants at this phase resist bowel-movement regulations, complete sphincter control is frequently attained during the fourth year of life.

5. *Promoting self-assertion.* Self-awareness is a task pertaining more to preschool years than to late infancy. It begins with a discovery of one's individuality with its likes and dislikes, and preferences and relationships with parents, siblings, and others. Acquiring proper forms of self-assertion is important in fostering the concept of the rights of the individual. Parents, through careful guidance, can help the child attain mastery over obstacles in a more efficient manner while avoiding any dominance over the child.

EMOTIONAL AND SOCIAL BEHAVIOR

Manifold emotional developments are conditioned by maturation and learning experiences during this stage of infancy. The affective repertoire at the middle of this stage usually consists of experiences and behaviors indicating the existence of various sensory feelings, curiosity, excitement, and several types of fear reaction; and the showing of delight and affection, tension and distress, pleasure, laughter and relaxation, sympathy and compassion, joyfulness and disgust, anger and destructiveness, envy and jealousy, and elation and sorrow, as well as a few unqualifiable reactions. Early in the third year, signs of ability to display emotions of self-might and self-worth, such as feelings of inadequacy and conflict, of self-confidence, pride, and admiration, increase.

At this stage, the affective and emotional life is spontaneous and simple. Unless punishment was excessively used to inhibit emotional behavior, few if any attempts are made to control or to restrain emotional response. The emergence of an emotional reaction depends largely upon the infant's internal and environmental conditions. Parental direction and suppression of his self-initiative in exhibiting emotions are felt as the stage advances. If the infant is not hungry or thirsty or sleepy or hurt, most of his reactions are likely to be characterized by pleasantness and easiness; otherwise tension, anger, or temper outbursts are likely to occur for even very trivial reasons. All kinds of restriction in his tours of exploration call forth heightened emotional responses. Generally, emotional tension or disturbances are indicated by restlessness, by nervous mannerisms, such as thumb sucking, rubbing the head, chest, or genitals, frequent micturition, fidgeting, and excessive crying, by destructive behavior directed toward toys and other objects, and by withdrawal and regression to less mature behavior. The infant continues to need protection against various mishaps which cannot be fully anticipated by him. Yet his needs for exploration and accomplishment grow since these are important modes of learning and have to be respected by parents. Exploration often leads to the development of new interests and in this way promotes personality development of the in-

fant. Occasionally he cries at night and when ill. He continues to need the close attention of parents, especially when not feeling well. His habits pertaining to daily routine are fluid and not well established. Emotional support and parental approval are among the most intensified needs of this age.

SELF-AWARENESS

In the late part of this stage, the infant exhibits many signs of his self-consciousness and of personal choice. He readily makes up his own mind and takes initiative in planning play, locating desired food, and other activities. Toward the end of this phase, his imitational activities are restricted, and parental corrections are objected to vigorously. Not infrequently parents fail to understand the changing personality dynamics due to maturation and emergence of self, and, as a result, interfere with legitimate modes of self-initiative, learning, and strivings for autonomy. Adults may continue using suggestion, and they have a duty to protect the infant by stopping activities that may incur infections or injury, yet they also have to respect the child as an individual who has a mind, will, and some reason of his own. In addition to having his infantile individuality, he is now a child in at least some of his developments and activities.

QUESTIONS FOR REVIEW

1. What makes the expansion of environmental exploration possible? Under what conditions may neighborhood investigation begin?
2. Indicate the characteristic changes in physiological growth.
3. What are the factors contributing to behavior organization? Explain the parental role in this regard.
4. What characteristic language developments occur when the infant enters the speech level?
5. Name the criteria of speech and explain what processes and controls constitute speech.
6. Select two different emotions and illustrate their manifestations at this stage of infancy.
7. What are the outstanding signs of self-awareness? Describe infant behavior with this reference in mind.
8. In what ways does the infant now remind us of a child? Identify some signs indicating the termination of infancy.

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Personality Foundations during Infancy

IN THE FIRST two years of life, an infant grows intensely and begins to react more and more as a whole person rather than as a mere reflexive being producing isolated, simply stimulus-elicited responses. Therefore, in order to understand him as an emergent personality, he must be viewed in his total behavioral capacity. Appraising the human individual as a personality is a mode of integrative approach in the psychological study of human development and behavior. In an infant, personality refers to a cluster of potentialities for biopsychic activity and behavioral differentiation into traits, attitudes, and habits.

This chapter contains a brief description of the neonatal equipment and a detailed analysis of personality origins. The chapter also considers several theories of personality formation, discusses parental management of infants, and tries to explain how parents' attitudes toward their children exert a major influence on the early forms of personality organization.

NEONATAL POTENTIAL

Each neonate enters the world with myriad innate capacities, potentialities, assets, and liabilities. These behavior constituents are now largely latent, but many of them will be developed during various phases of life. A number of them may not be stimulated by the environmental context at all, while others may be suppressed by external pressures at certain levels of their development. Interaction among internal and environmental factors will lay a foundation for a personality de-

velopment at early and later phases of life. As a result, each human individual will develop a personality of his own.

With the exception of a very few extremely handicapped neonates, the infant has at least the following equipment: physique, temperament, endowment for intelligence associated with a capacity to learn, and a hereditary potential for individualization. No two individuals have the same set of genes and cytoplasm although the heredity and early physical environment of identical twins are often presumed to be identical. Chapter 4 presented an analysis of various factors explaining why, under all circumstances, the environments of all infants, including monozygotic twins, are different in various aspects. As a result of specific environmental pressures on the internal constituents of growth and maturation, the variation among individuals already observed at neonatal stages is magnified as infants grow older. On the basis of inborn capacities and their organizational qualities, new tendencies, traits, and feature combinations emerge. The multiplicity and the rapidity of developments occurring during the first two years of life were amply demonstrated in the two preceding chapters.

During infancy, changes in sensitivity and adjustment to various environmental factors begin to evidence distinctive patterns of reaction. By the third year, all major personality qualities and traits have become more closely interrelated. This is particularly due to the increased self-awareness which is now developing at a considerable rate into a system of self and a pattern of relationships to others.

DEVELOPMENT OF TRAITS

There are two major modes of reaction in small infants. We may observe a particular infant who is showing good adaptability, moderate sensitivity, and nonirritable, easygoing behavior. He is seldom upset emotionally by proper internal and environmental changes, e.g., getting wet, waiting for or taking in food, falling asleep, and natural temperature changes. Another infant may be more reactive and excitable. Each new influence and manipulation, e.g., laying him down, putting on a diaper or shirt, changing his position, and feeding him, causes emotional tension and crying. Later modifications and refinements of these two approaches to reality have much bearing on the pattern of personality organization, especially in terms of adjustment and development of self-defenses. These approaches are the beginnings of fundamental traits and attitudes.

It may be added that the traits and personality pattern shown during the early years of life tend to develop further and attain a relatively persistent structural status [22, 30, 34]. Madorah E. Smith [30, p. 179],

in her study of six children of the same family, found many traits among children to be significantly consistent. The traits appraised as most consistent were affection, ambition, attractiveness, brightness, conscientiousness, sympathy, bossiness, contrariness, carelessness, irritability, jealousy, nervousness, quarrelsomeness, spunkiness, and strong will.

Later developments are to an increasing degree expanding and supplementary rather than transformatory, and evolutionary rather than revolutionary. Apparently one of the fundamental explanations why the first two or three years are so crucial for conditioning later developments is that these basic developments underlie personality growth and integration. Infancy is a very critical period in setting the pattern for later personality development.

ROLE OF PARENTAL ATTITUDES

Since parental influences are manifold—hereditary, constitutional, social, regulative, and environmental—parents represent the most potent conditioning factor in the life of the child. In terms of personality foundation and early developments, the parents' level of emotional acceptance of the child and their resulting attitudes toward him play a leading role. To each infant a particular combination of the following ranges of attitudes of his parents will apply: genuine affectionate acceptance to hostile rejection, extreme indulgence to carefree neglect, pampered infantilization to extreme lack of mothering, complete autocracy to licensed permissiveness, multiple pressures toward acceleration to distinct nonchalance.

The myriad complexities of behavior in the parents and others who surround the child inevitably tend to elicit and direct the child's behavior into a particular pattern. The infant learns to use various means and techniques to gratify his basic and derived needs. Within the family matrix, a child acquires tendencies to desire or fear certain objects and situations, and he learns what to do and what to avoid doing. Such learning, in turn, molds variables of his emergent personality into a particular structure. Later on, the child learns from his parents reasons for do's and don't's. Any extensive absence of fathers, during World War II, for example, lessens opportunities to learn what pertains to the masculine role and favors the acquirement of feminine qualities. D. M. Levy's study of *Maternal Overprotection* [20] provides classical illustrations of a variety of reinforcements of specific traits in children who have dominant or submissive mothers. Dominant mothers, for example, by their extensive frequency of control and punishment tend to create and facilitate the submissive and dependent traits in their children. An

experimental study by Halla Beloff [7, pp. 169–170] shows that anal traits exhibited by the mother are substantially related to the child's acquisition of an "anal character" marked by parsimony, orderliness, pedantry, egoism, desire to dominate, and related features. The aforementioned and many other studies demonstrate that infantile experiences have noticeable effects in later life. For example, reinforcement increases the strength of the oral drive, and coercive toilet training heightens separation anxiety and magnifies negativistic behavior [9, pp. 41–42].

A dominant trait of the mother is likely to persist from one phase to another. Cleanliness may be taken as an example. A mother may continually feel compelled to clean the hands of her children. A child of two or three may realize his mother's appreciation for clean hands. As a result, he may begin to wash his hands more and more often. He will frequently expose them for his mother's approval. Soon a deeply entrenched habit will be developed, which may give rise to compulsiveness and become a form of anxiety expression as anxiety begins to accumulate. This anxiety may be generalized and expressed as a fear of bacteria when the child learns of their existence. The anxiety may expand and affect other aspects of life. It may be expressed in religious fears in which the person attributes a sin to infrequent handwashing. He feels obliged to wash his hands numerous times, in spite of their apparent cleanliness, lest he should displease God and incur punishment. A mother with a perfectionistic tendency may use a variety of means in her dealings with the child to hurry him in learning subjects he is not ready to grasp. Again, a self-defensive attitude may be formed by the child in his attempts to adjust to his mother's preference and impatience. Thus, in many obvious and subtle ways, an expressed attitude of the mother calls forth particular responses on the part of a child until they engrain themselves, and he develops a habit which can be either advantageous or disadvantageous to him.

Patterns of Child Rearing by R. R. Sears *et al.* [29] is a major source which appraises factual data on child-management practices. This book, based on a sample of 379 cases, points up various effects and implications of different approaches used by American parents in rearing children.

The infant has intrinsic needs for close human association, for gentle and affectionate handling, and for direct protection against common dangers and undesirable influences. His mother and father are best suited to help the child attain gratification of these needs and to counteract various security-disturbing factors. Because of the infant's helplessness and inaptitude, promotion of security on his own part is negligible. Under a favorable child-parent relationship, the parents are likely

to become the two dominant human models as soon as the process of self-identification starts at approximately three years of age. Long before this, the parents' emotions, attitudes, habits, and other behavior patterns have been "taken in," whether or not resistance was exhibited. The extent and quality of the ability to identify with other persons and to relate to them intimately is derived in large measure from the kind of relationship within the family during these early years of life [3, p. 175].

The effects of satisfying the need for affection are deep and pervasive. A. T. Jersild [18, p. 894] stresses the fact that love enters into and greatly affects the quality of the total environment and conditions its relationship with the child. "A basic and all pervasive feature of parental love for a child is that the child is liked for his own sake; he is viewed as something valuable per se; he is respected as a personality in his own right. The child who is loved for himself is free to be himself." He then is in a position to experiment and learn for himself, to mold his own self in terms of his potential.

INDIVIDUATION OF RESPONSES

The latter part of infancy is marked by individualization of responses, feelings, and attitudes. As the emotions of self-potency and self-worth emerge, self-initiative increases, and the child's resistances to parental initiative and suggestions becomes magnified. "No, no!" and "Johnnie don't!" are frequent expressions of the two- and the three-year-old child. The emergent child gradually realizes that he is an individual with a mind. He can make choices and has desires of his own. From now on he continually plans some of his activities and by means of strong emotional outbursts registers his opposition to any interference on the part of parents, siblings, and other children. Dawdling, stubbornness, and contrariness seem to constitute the nucleus of postinfantile self-assertion. The peak of negativistic behavior occurs early in the third year. Negativism seems to signify an awkward stage of transition from the helplessness, docility, and dependence of infancy to the relative autonomy and partial self-reliance of a preschool child who can feed, bathe, and dress himself with little assistance, who can plan his own amusement activities and apply a variety of means for his own goals, and who can go by himself to play with the neighborhood "kids" living within one or two blocks.

The child's negativism represents a kind of fundamental conflict at the critical periods of self- and personality organization. The third year is one of the first critical years in human development because at this age the self-system emerges as a higher level of existence. One of the major principles of development is that when any new ability ap-

pears, it is practiced vigorously for some time until the ability is well learned. The same applies for self-organization. Personal likes and dislikes, tendencies toward specific foods and drinks, and activity and rest now become self-related, and therefore are powerfully asserted against all threats and barriers. While at the beginning intensified negativism does not seem to make too much sense, it soon becomes integrated with the needs and desires of the emergent personality. Thoughtful and partially permissive handling of negativistic behavior is therefore a prerequisite for adequate self-development and personality integration. D. P. Ausubel [6], J. Pikunas [24], H. Rempelin [25], and others consider negativism not merely as a developmental necessity in promoting individuation but also as a distinct phase of self-development.

It is advantageous for the young child's future if parents provide opportunities in which the infant may practice using his own mind in choosing toys, food, and clothes and in other forms of exploration. Parents should guard themselves against overcorrectiveness and strict and, especially, inconsistent discipline. Parental and social factors which aid the child in his experimentation, planning, and active participation in family, school, and community life promote development of his individuality and selfhood. Under adverse circumstances the suppressing effects of overrestriction will produce emotional strain and tend to unbalance biochemical and behavioral controls.

HABIT FORMATION

Another fundamental capacity closely allied to personality growth is the early appearing ability to form and, in the light of successive experiences, to revise habits. Already during the first and, especially, the second phase of infancy, habit formation extends to practically all aspects of the child's activity. Any regularity, system, or order introduced by parents readily molds natural tendencies into various habitual patterns. As soon as the habit is established and practiced for some time, moderate resistance is shown to any attempts to change it. New developmental processes accompanied by the emergence of new abilities and skills offer sufficiently good opportunities for both modification of the old and foundation of the new habits. As the infant grows he is exposed to a variety of learning situations at home and elsewhere. Such a condition assumes a progressive and increasing role as a promotional factor in personality development through the accumulation of experience and knowledge.

Since an infant possesses a very limited number of ready-made response systems for gratifying his needs, it is his task to acquire many new and socially acceptable techniques for the expression and satisfaction

of hunger, thirst, elimination, curiosity, and other drives. Usually, newly acquired techniques and skills are extensively used, and therefore become habituated. The repertoire of habits increases with each passing month and year. As a result, original behavior abates.

INFANT GUIDANCE

Parental treatment accorded to the infant during the early phases of life either forms a basis for security and growth or handicaps both. A desirable and security-forming relationship between the parent and infant is marked by genuine acceptance and love. Unconditional acceptance of the infant as he is helps the parent to avoid all extreme forms of interaction, and it may assist much in the establishment of a harmonious balance: the infant is loved but not overprotected; the parent is firm but not dominant; infant management is elastic but not too permissive. The parent makes efforts to satisfy the infant's needs adequately but refrains from indulgence [24, p. 121]. The present decade is marked by a general decrease in severity of the infant's training and an encouraging trend toward tolerance of the infant's toilet controls and autoerotic impulses. Parents are beginning to understand more fully that young children are soft and pliant beings who profit much from lenient rearing practice.

The infant's inner forces leading to a variety of developments and to a gradual self-realization may be suppressed, inhibited, and distorted if his fundamental needs for belongingness and love, for protection and respect are not understood and gratified. Various growth processes can be disturbed by any strong and lasting fear or hostile reactions which may condition the individual, in order to maintain safety, to encapsule himself at one particular level of maturity or even press him to regress. Parents have a natural responsibility to exert their own resourcefulness so as to make the choice of growth more attractive than the choice of fixation or regression [21].

Although the potentials for personality development exist from conception, the nucleus of personality structure seems to emerge when the neonate begins to respond to external stimuli and begins to evidence experiential learning. The mother's or her substitute's approach and reaction to the infant are one of the first lasting influences initiating differential responsiveness on the part of the infant. This, in turn, becomes a major factor in the formation of first the nuclear and then the surface dimensions and traits of personality. Thus, when the question arises why infants seem to be predisposed toward the development and exhibition of certain traits, the answer involves parental reactions to them, as well as the unique constitutional qualities and features which contribute

to more or less distinct behavioral tendencies. These constitutional factors, in turn, are determined by heredity and influences of prenatal environment. The reinforcing and suppressing influences of the various environmental factors are obvious yet difficult to measure.

The neglect of parental responsibility may have powerful repercussions on many later developments. Parents, for example, may readily adjust to some delay in performing a developmental task. A mother may not care that her two-year-old infant does not make progress in eating new solids. She may continue providing "baby foods." As a result, feeding difficulties may arise and plague the family for many years. This undesirable behavior of the infant which could have been readily corrected in the second year may become more generalized and expand into resistance to other developmental tasks. Difficulties in adjustment may increase with the years. Self-dressing is another example. The mother may continue doing something that the infant is capable of doing. In this way, she deprives the growing child of his early initiative. The child may get into a problem when he enters school by failing to learn something that contributes to his adjustment.

The first phase of infancy seems to be the "embryonic stage" of personality formation, during which a number of major abilities appear. The second phase elicits many peculiarly human developments, such as speech and imagination, which can be more readily appraised by specially designed intelligence tests for infants. The periods of infancy are the most formative years of a child's personality growth because the pattern-setting occurs at this age. Individuation forms a basis for the emergent self-direction.

THE EMERGENCE OF A SELF-CONCEPT

Early in the second year, the infant becomes aware of his own bodily organs, some of their functions, and his capacities in performing single tasks. Soon he learns to differentiate clearly between his own organism and various environmental factors. Inner needs and organism-centered wants are distinguished from objects and conditions which can gratify such wants. If the infant is liked and respected as an individual, he will have an opportunity to progress in his awareness of abilities and other natural tendencies [18, pp. 181, 183].

The child's self-awareness plays a leading role in organizing and unifying needs, motives, and incentives. As the infant gains control over his motor functions, he begins to manipulate to an ever-increasing degree the various environmental factors in terms of himself. W. Stern [33, p. 444] recognizes the operation of self-willed performance in the

acts of the fifteen-month-old infants who begin to set themselves little tasks which they try to accomplish.

Throughout the latter part of infancy, the self continues to establish the order of priority among the infant's activities, feelings, goals, and ideals. Unless some kind of powerful interference or pressure reverses the trend, motives and actions which are in accordance with the self come to have the right of way. The capability for drawing on one's own resources for self-directed experiences expands with the following months and years. Self-initiated identification with one or both parental models and other individuals takes on much influence as the infant's level of maturity is advanced.

J. E. Anderson [5, p. 416] goes one step further when he concludes that the child "is very much of a creature in his own right, moving through his own experiences and creating his own world." More and more frequently the child, in terms of his own self, becomes the final arbiter as he grows into childhood and adolescence.

Personality foundations during infancy are wholesome only when parents are aware of and satisfy their infant's somatic and psychosocial needs, when their care is affectionate and guidance is gentle. Moreover, parents can promote maturation by providing appropriate stimuli for emerging qualities through personal encouragement, in playing with the infant, and by means of age-related educational toys, especially designed to foster physical and mental development as well as to give the infant frequent opportunities for self-expression. Such positive social facilitation enables the infant to evidence his individuality fully and to take the initiative to learn to interact effectively with the variety of external factors constituting his milieu and culture. Under such circumstances the individual personality becomes organized in terms of his own potentialities and functions at the most advanced level of development of which he is capable.

THEORIES OF PERSONALITY DEVELOPMENT

Since behavior is first of all influenced by the reactional capacity of the total organism, the results of experimental studies are often inconclusive or obscured by a lack of conceptual clarity, and give impetus to the nature-nurture controversy between hereditarians, such as F. Kallman [17], A. Scheinfeld [28], and R. R. Gates [15], and environmentalists, such as J. B. Watson [35] and R. S. Woodworth [36]. The hereditarians propose the theory that personality is determined by heredity and the resultant constitution; the environmentalists would have their students believe that personality is largely the result of en-

vironmental and cultural influences. Many carefully designed experimental studies are needed to bring some statistical and conceptual clarifications to this still widely contested subject of key influences.

Since S. Freud's original distinction of libido-based stages of sexual development (oral, anal, and genital, each of which is divided into early and late periods), many psychologists and psychiatrists have expressed belief in the great importance of such stages and periods for later personality formation. Freudian hypotheses gave impetus to numerous studies, some of them affirmative and some negative.

It is difficult, for example, to obtain experimental evidence validating Freud's theory of *infantile omnipotence*, that of the Oedipus complex, or that of *oral character*. Infantile omnipotence, for example, refers to Freud's belief that the first concept of oneself emerges as a result of lack of external demands upon the infant and also parental readiness to respond and satisfy the infant's needs as soon as these become manifest. Viewing it from another angle, a full dependence of infants on their parents can scarcely stimulate an image of omnipotence or reinforce it if it is already formed. The psychoanalytic emphasis on the determining power of the infant's early feeding procedures in later forming such adult characteristics as pessimism or hostility does not find empirical support. It contradicts a better-supported hypothesis that specific feeding and management methods have various psychological influences on different children [23].

Freudian psychoanalysts assume that during the early phase of infancy, a considerable amount of the baby's activity consists of the "taking in" of nourishment and affectionate care, centering around the oral zone. The receptive and the later active or expulsive orality—biting, spitting out, and masticating—may be partially deprived of its activity through the lack of objects of gratification. The resulting conflict and anxiety may become fixated at this level of psychosexual development and lead to an orally motivated character. It is further hypothesized that such a person will be marked by his continual search for oral gratifications in a variety of forms, e.g., excessive interest in and compensative activities with food and drink, or potent verbal activity characterized by "sharp tongue," verbal aggression, and sarcasm.

A great majority of theories on personality development assign a leading role to the events and experiences of infancy [5, 27]. As the infant develops his capacity for perception and retention, certain images of his parents appear and stabilize. If, in the mind of the child, his parents are sources of protection, affectionate care, and security, the subsequent confirming experiences will help in engraving their images and in producing respective concepts, whereas the occasional contrary experiences will tend to disintegrate. Conversely, when early experiences of an un-

pleasant kind predominate, the apperception of parents as threatening and persisive agents will be solidified. Much contrary evidence will be needed to repress or transform such original percepts [31].

Since fear is a universal response of infants and children, intense or frequent displeasure and frustrating situations associated with parents will tend to stimulate fearfulness and insecurity. They then will negatively affect the total mode of parent-child relationship, the fundamentals of which are established during the latter part of early infancy. The love impulses of the fearful infant will be exaggerated and difficult to gratify. Hence, anger, temper tantrums, jealousy, and hostility reactions will become predominant as the child grows into the preschool years. If this kind of negative relationship is imprinted upon the mind of the infant, it will block the responsiveness of the child to parental discipline and later to societal controls. Many parental attempts to facilitate the formation of sound habits and desirable attitudes will be ineffective. A parent's reaction to such difficulties in child guidance during the late stage of infancy and childhood will lead either to various forms of aggressive behavior or to undue dependence and a feeling of inferiority. These may be implanted as dominant qualities of individual reactivity and ego defense.

Hence, all conditions and situations which foster insecurity and promote undesirable intrafamily relationships will interfere with the personality development of the child and in some instances predispose him toward a specific pattern of maladjustive or abnormal nature. Once such a pattern is stabilized, long-term growth-stimulating and reeducative psychotherapy may be necessary to "correct" the past and to introduce steps toward goals of more adequate personality growth and maturation.

Early in the second stage of infancy, the individual progresses greatly in his ability to exercise control over the basic skeletal muscle groups and to respond directly to the simple requests of his parents and siblings. The infant often eagerly looks for "go" and "stop," "do" and "don't" indications. Because of this positive attitude, the opportunity for toilet training presents itself. Fifteen to nineteen months of age seems to be the most favorable age for this. Bowel control is frequently achieved before the infant's second birthday, while bladder control is established about one to two years later. Two basic conditions underlie this significant accomplishment: neuromuscular readiness and lack of undue strain in the emotional ties with the parents. Within several months after bowel control is achieved, the infant usually learns to use the toilet facilities with little assistance from his mother.

It is the authors' impression that American parents are very eager to attempt to establish toilet control at a noticeably earlier age than in-

dicated above, and earlier than parents in any other cultures or nations. Psychoanalytic and psychiatric literature points out that in doing so they expose their children to much additional strain and conflict which may predispose them toward excessive negativism, thrift, cleanliness, orderliness, obstinacy, and compulsive traits [4, 14]. Psychoanalytic theory emphasizes the close relationships between various types of feeding, toilet control, and early libidinal cathexes and the subsequent pattern of personality development. Margaret A. Ribble [27] reports the importance of breast feeding on the mother's motivation and implies that the arising of some digestive disturbances is linked to bottle feeding. Any intensified oral and anal frustration may thus lead to a disturbed personality pattern and to a difficulty in overcoming the dynamics of the past. This disturbance may persist throughout life. It causes many individuals to act as if situations which have long since disappeared were still in existence.

Noteworthy are E. H. Erikson's views [1, pp. 232-233] on the stages of child development. He assumes that each phase of child growth and maturation has a core problem or conflict. It has to be solved in order to lay the groundwork for orderly and vigorous personality development in the subsequent stage. The nuclear conflict between trust and mistrust, for example, pertains to the first or oral-sensory stage of life. Erikson avoids any detailed explanation of the core conflicts and their effects on subsequent phases of life. He also fails to elaborate on ways core problems should be handled.

The hypothesis of "critical periods" in child development has been raised by several investigators of the field [25, 32]. The leading idea implied is that certain traits appear as clusters rather than individually at a certain developmental level, when sufficiently stimulated by relevant situations. When not stimulated, such traits will not be developed at all. If relevant stimuli are present at an earlier or later level, such developments also fail to occur. It may be inferred that when some fundamental developments do not take place, any advanced developments within the same dimension are impossible. Hence, a lack of emotional and behavioral identification between the mother and her baby may handicap the baby for later identifications with other individuals of female sex. Lack of identification with the father may impede later identifications with male individuals.

The theory of critical periods readily gains support when one studies the case histories of psychopathic and psychotic cases. Deprivation of human intimacy is very frequently reported in these histories. Several studies contain abundant evidence concerning the possibility of such a developmental arrest of emotional and social-moral sectors of personality in favor of antisocial and other less desirable growth trends [8, 13].

Beginning with R. J. Havighurst [16], reference is often made to the developmental tasks in terms of specified achievements at various phases of growth and maturation. These developmental tasks are specific abilities and skills which an individual learns best when he has reached a certain level of neuromuscular, emotional, and mental development favoring their acquisition. For example, a child will acquire the skill of walking when his musculature is sufficiently developed and when he has mastered the prerequisite skills, such as standing and balancing. He needs mental and emotional incentive, a desire on his own part to take a step. Mastering age-related developmental tasks marks progress in personality growth and its integration.

Self-preservation, achievement of physiological equilibrium, and adjustment to external reality may be recognized as tasks of the neonatal phase. Control over large muscle groups and overcoming helplessness may be seen as tasks of early infancy. Learning verbal expressions and fundamental concepts of physical and social environment and acquiring toilet controls are some of the representative tasks of late infancy [24, p. 40]. A satisfactory completion of developmental tasks of infancy lays a wholesome foundation for childhood and later periods of growth and maturation.

QUESTIONS FOR REVIEW

1. What are the major internal and external factors which lay the foundation for human individuality?
2. Define and illustrate several modes of possible infant reactivity toward selected environmental stimuli.
3. Describe some traits and indicate the fundamental relationships between traits and habits.
4. Why are parental attitudes and treatment accorded to an infant important for his development and personality growth?
5. Explain the role habits play in personality development.
6. Describe the role of learning in personality foundation and development.
7. What have assertiveness and negativism to do with advanced levels of personality organization?
8. Enumerate some key factors making the first two years of life extremely crucial for the future development of a given individual.

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SECTION

V

CHILDHOOD

CHILDHOOD is a stage at which a young person expands significantly his self-direction in terms of his endowments and environmental opportunities. The preschool years are marked by amazing progress in vocal self-expression, fantasy, and emotional differentiation. Appearance of moral and religious notions in evaluating relationships and events, advance of social interaction, and play activities introduce many new forms of reaction to environmental stimuli and situations.

Growth of intellectual abilities and gains in independence make a child ready to enter school. There he meets and interacts with a teacher and other children of his age. In two or three years of such peer intercourse, he becomes ready to merge into the child's society. Parents and adults then, if not before, notice traits and attitudes related to these away-from-home ventures. The advancing years of childhood lead to proper peer identifications which set the pattern for later social and emotional identifications. The child's intellectual grasp of reality is deepened and magnified. Insight into parental and peer characteristics, one's own motivations, and many aspects of physical and social environment increases in depth.

CHAPTER

II

Preschool Age

DEVELOPMENTS during the stage of preschool childhood depend much on earlier, partly passive and partly active processes of "taking in," training and learning activities, apperceptive assimilation, and an increase in self-awareness. The extent and individuality of his responses and feelings begin to exhibit the kind of personality the child will have. Before he is sent to school for formal education, his resources and gifts begin to make their appearance. At this stage, the child continues to make varied and frequent use of practically all of his abilities and skills. A child is now capable of protecting himself against common dangers. Instead of crying for trivial reasons, he verbalizes his experiences in many fearful and unpleasant situations. Self-centered and emotionally toned behavior and effective use of oral self-expression are the two outstanding characteristics of this level of development.

PSYCHOMOTOR CONTROLS AND PLAY ACTIVITIES

Throughout this phase, the rate of physiological growth continues to slow down. As a result, the child is well disposed to attempt and attain many additional and finer motor controls which, in turn, enable him to engage in an ever-increasing variety of bodily activities. In the early days of this phase, he can efficiently leaf through a book or magazine, build a tower of nine or ten cubes, go to the toilet by himself, and assist mother in the kitchen and garden. The child can climb, stand on one foot, make dancing motions, produce singing sounds, turn and run in any direction, stop wherever necessary, and go up and down stairs unaided and alternating his feet. Whenever an opportunity presents itself, he attempts to draw vertical and horizontal lines and begins to identify the "things." Whatever the child does, he performs it with increased

ease, expertness, and speed. Often he has a purpose in mind. Complicated psychomotor patterns, such as ABC writing, piano playing, skating, and swimming, all may be acquired gradually if the child's attention and effort are secured. Facility in performing basic and specific motor skills leads to rhythmic activity and gracefulness before this phase passes its midpoint [8, p. 43]. Singing and athletic activities, such as football, baseball, and other ball games, may now appeal to the preschool child. He may eagerly practice some of the skills needed in these activities. If parents or others pay attention to the the child's play, he begins to appreciate this approval and evidences much delight in whatever he happens to accomplish. As a result, he may proudly display his ability in order to receive some praise. Although his "products" are crude, the value of his experience is great. Therefore, the child deserves encouragement. During this total stage, play activities are marked by creative endeavors and dramatizations due to the increased ability of the child's imagination. In imitating other children, adults, and TV, various make-believe situations are produced by the use of dolls, clay, miniature furniture, trucks, balls, human figures, animals, soldiers, and household tools.

A natural tendency to balance strenuous physical activities with the more passive play is usually noticed under ordinary circumstances, but, especially when visitors are present, the young child may need direct parental regulation in order to avoid exhaustion. The preschool child is a great "show-off" and his need for attention is difficult to satiate.

DIFFERENTIATION OF EMOTIONS

Following the child's entrance into this stage, affective and emotional experience undergoes a significant reorganization and differentiation. Many new feelings and emotions emerge, and their range and depth increase and greatly affect the personality of the child. This period is marked by the emergence of self-centered emotions, such as shame, guilt, and remorse, by attitudes of self-confidence or inferiority, and by the acquisition of personality-centered attitudes and sentiments of a social, aesthetic, moral, and religious character [8, pp. 45, 92].

Fear is one of the most usual affective reactions of a preschool child. Anything unusual calls forth this emotion. With increasing self-awareness, personal sensitivity and vulnerability to fear expand despite the fact that familiarity with and understanding of formerly strange objects are advanced. The child realizes that some animals or other objects of which he was previously afraid are not harmful; however, now he learns about a variety of remote and imaginary dangers, such as giants, kidnappers, bogies, accidents, and eventually death. For this reason, fear

of being alone and of the dark tends to disturb the child, and his imagination is likely to add considerably to the awareness of the unusual and terrifying.

Anger and temper outbursts are not infrequent during these years of early childhood. Any unsatisfactory management of children, any deprivation of their needs, and any conflicts and frustration may greatly reinforce such reactions and make them habitual. There are children whose emotional sensitivity is such that they fall into anger or similar outbursts without any thwarting or provocation whatsoever, while others show a capacity to tolerate a considerable amount of probing interference in their activities. Affective outbursts may also help children to gain the attention they need or the gratification of their whims if parents respond to them or are inclined toward such response. Many situations give rise to displays of anger: (1) all kinds of deprivation, (2) restraint and punishment, especially under emotional excitement, and (3) the frustration of initiated activity, expectations, and wishes [8, p. 95].

Envy and jealousy are other frequent emotional experiences of the preschool child. If a child has an interest in a particular object, he wants to have it at his disposal until something else gains his attention. Tendency to store such objects is characteristic of this age. Thus, the child is bound to become exceedingly envious if his siblings or friends want to have his treasured objects too, or even when they want to share them in play.

Because of his small body and relative helplessness, the child evidences a strong desire for affection and attention from the persons he loves. As a result, he is very sensitive to any attention or favor his parents show to somebody else, especially to individuals of similar age. Jealousy is usually expressed by activities designed to regain the central role, such as loud and less mature behavior, seeking help where the child had control earlier, self-punishment, and hostility toward others.

The need for affection is not merely a vital feeling but also a fundamental human need. Many psychologists, psychoanalysts, and psychiatrists stress the paramount importance of receiving maternal affection and care during the early years of life [3, 7, 10, 11]. R. A. Spitz [11] found that the infant's survival may depend on the level and frequency of human contact. Where this is insufficient, the infant may die without a sufficient medical cause. Mental developmental and psychological well-being are augmented by affectionate care and loving attention granted by parents and other individuals in constant contact with the child. Parental feelings and attitudes toward a child represent a major influence on his development and personality.

Co-experiential emotionality begins to play a considerable role in interpersonal relationships at this age. Sympathy, for example, denotes identi-

fication with another's sorrow or pain and calls forth assistance and affection, while empathy refers to the child's identification with someone's emotional states in a variety of situations. Compassion appears as a vivid portrayal of emotional experience responding to the behavior of another. During this phase, much progress occurs in this aspect of emotional experience which first assists the young individual to understand others and to become a participant of the family group and later permits adequate interaction with other individuals and identification with peer groups in the neighborhood and at school.

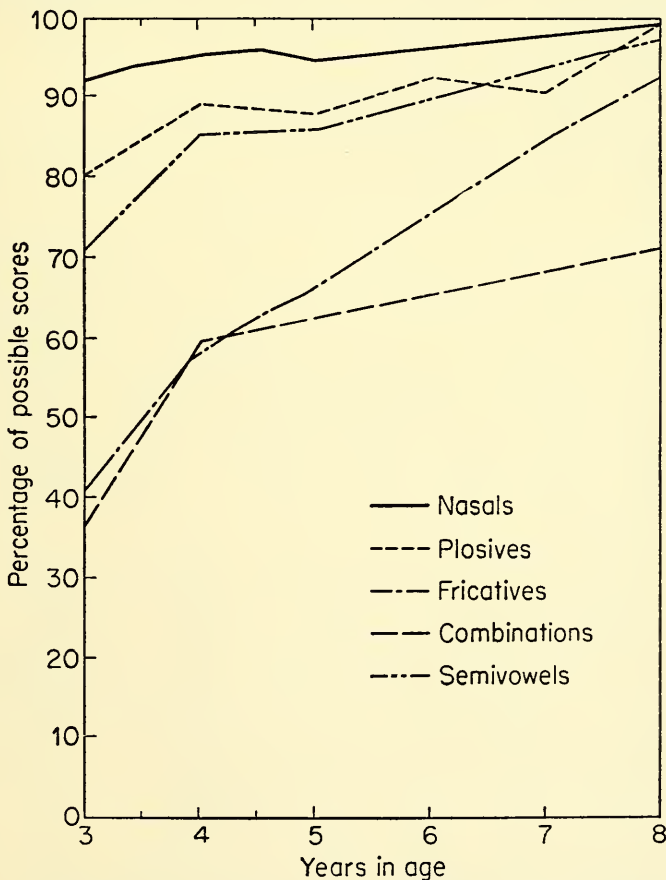
TASKS IN SPEECH DEVELOPMENT

Speech at this age becomes one of the most valuable dynamisms of self-expression and interpersonal adjustment, and the child now acquires it with amazing ease. Verbalized behavior contributes substantially to his personality development, accumulation of personal knowledge, and socialization. The process of advancement of the speech function is characterized by gradual disappearance of infantile forms of speech, such as incomplete sentences, lack of rhythm, slurring, and lisping. C. Van Riper's book *Teaching Young Child to Talk* [13] is an illustrated non-technical source dealing with speech tasks and problems which offers many useful suggestions in educating a child for a better and more efficient use of language. Development of a variety of language skills in children between three and eight years of age is experimentally assessed by Mildred C. Templin [12]. Figure 11-1 illustrates the progress of articulation of various speech sounds during the preschool and early school years, based on a sample of 480 children in Minneapolis. A sharp rise between three and four years of age is readily noted, a more gradual progress during the later years.

The child is now faced with at least six major tasks: (1) improving pronunciation and diction, (2) expressing needs and relating experiences, (3) comprehending the speech of others, (4) combining words into sentences to express thoughts, (5) building a vocabulary, using all parts of speech, and (6) increasing conversational skill in order to secure attention. It is easy to notice that all of these tasks are interrelated; no specific one should be emphasized to the detriment of any other. Unless emotionally or socially disturbed, the child continues to improve his speech performance, and the advanced patterns gradually supersede and become dominant. The preschool child has difficulties in enunciating th, j, r, s, z, h, g, and ch, often in this same (decreasing) order of difficulty. When the child begins to use all parts of speech, he enters the level of adult speech. Frequently this occurs at the age of four years. The average vocabulary at this time includes about three hundred words which the child spontaneously uses and about fifteen hundred words

which he can at least partially understand [8, p. 46]. This shows that the ability actively to employ words and combine them into phrases and sentences lags considerably behind the capacity to comprehend and respond to them. If the parent or anyone makes a verbal request, the child responds intelligently long before he succeeds in repeating the words spoken to him. There are many ways by means of which children demonstrate that they understand speech communication which is not as yet a part of their own self-expressive vocabulary. Comprehension is apparently one of the easier tasks to be mastered; however, the preschool child has a tendency to attach concrete or literal meanings to words. For this reason, the child may occasionally misinterpret parental and adult communication, including praise and affectionate gestures toward him. These may frighten or anger him as he interprets them word by word. Abilities to recognize several meanings, to abstract, to see analogy,

Figure 11-1. Percentage of Total Possible Scores on Nasals, Plosives, Fricatives, Combinations, Semivowels



(Mildred C. Templin. *Certain Language Skills in Children, Their Development and Interrelationships*. P. 39. Minneapolis: University of Minnesota Press, 1957. By permission.)

and to understand humor or metaphor are difficult tasks for him. Initial steps in acquiring these skills are made in the late part of this phase. Facial expressions, gestures, and advance in emotional rapport supplement and refine the child's distinctions in interpersonal communication.

The most noticeable increase in vocabulary occurs in the early part of the preschool age and then gradually levels off. During this stage, in addition to the increase of nouns which dominated the infant's speech, a substantial increment of other parts of speech is observed. The number of words per sentence expands now at a very fast rate. Many four-year-olds can use practically complete sentences of four to seven or more words as Table 11-1 indicates [6, pp. 546-549].

One of the most revealing early experimental investigations of vocabulary formation is that of Madorah E. Smith [9]. The 1926 study ascertained the average size of vocabulary from one to six years of age. The findings indicate that a child at the one-year level knows three words, at eighteen months twenty-two, at two years 272, at three years 896, at four years 1,540, at five years 2,072, and at six years 2,562. The most obvious increase occurs between the ages of two and three. The Smith method of vocabulary assessment appears to measure the breadth of it, rather than the depth of the child's understanding of words.

Since the young child learns principally by imitation of persons in his immediate environment, he readily accepts the pronunciation and speech pattern of these persons. It is important, therefore, to insure the use of correct speech and sound diction by older individuals in the child's environment. Recently television has become of considerable assistance to all, especially children. Children of large families appear to be slower in their speech development than only children or children of small families because the former rely more heavily on their siblings. The socioeconomic status of the family is also a significant factor because it means a rich or meager background with many or few educational advantages at the child's disposal.

There seems to be no detrimental effect resulting from acquiring a second language provided that the child's intellectual capacity is average or better, that each language is taught correctly, and that there are no undesirable emotional attitudes involved which would make the child resistant to one of the languages. In the case of low mental endowment a single language is practically an insurmountable task, and a second language may turn out to be an additional obstacle.

FANTASY AND INTELLIGENCE

The growth of imagination which began in the second phase of infancy reaches a major spurt during the years of preschool childhood.

Table 11-1

Mean Length of Sentence in Spoken Language as Shown in Fourteen Investigations
(Number of words per sentence)

Author and type of study	Date	Group	N	Age												
				1½	2	2½	3	3½	4	4½	5	5½	6	6½	9½	
M. E. Smith: ¹ One-hour conversations in play situation. Miscellaneous cases. Not discrete age groups	1926	Boys	64		1.3	2.2	3.3	4.4	4.1	4.8						
		Girls	60		2.2	2.4	3.5	3.8	4.4	4.7	4.6					
		All	124		1.8	2.2	3.4	4.3	4.2	4.7	4.6					
McCarthy: Representative group. Fifty responses with adults	1930	Boys	67	1.0	1.4	3.2	3.1	4.2	4.3	4.6						
		Girls	73	1.3	2.1	3.1	3.8	4.4	4.4	4.7						
		All	140	1.2	1.8	3.1	3.4	4.3	4.4	4.6						
Day: Representative group of twins. Fifty responses with adult	1932	Boys	79	1.3		2.5		3.0			2.9					
		Girls	81	1.7		2.5		3.0			3.5					
		All	160	1.5		2.5		3.0			3.2					
Shirley: Fifty responses with adult. Longitudinal infant study	1933	All	23	1.7	2.7	4.2	4.5									
Fisher: Gifted group. Three 3-hour samples in play situation	1934	Boys	35	3.4	4.7	3.4	5.0	8.4	6.9	10.1						
		Girls	37	3.9	4.8	5.3	6.3	5.6	7.6	8.3						
		All	72	3.7	4.8	4.7	5.6	6.9	7.2	9.5						

SOURCE: Dorothea McCarthy. Language Development in Children. In L. Carmichael (Ed.), *Manual of Child Psychology*. Table 5, pp. 546-549. By permission.

¹ Data from M. E. Smith's 1926 study have been recomputed from raw data presented in the appendix because of discrepancies between her Tables I and XII. Actually based on 124 records from only 88 children.

Table 11-1 continued

Author and type of study	Date	Group	N	Age													
				1½	2	2½	3	3½	4	4½	5	5½	6	6½	9½		
Howard: ² Triplets	1934	All															
M. E. Smith: ³ Miscellaneous cases. Overlapping in child-child and adult-child situations	1935a	All	305	1.21	1.82	2.53	3.54	3.43	4.64	4.95	5.04	5.15					
		Boys	153	1.21	1.52	2.43	3.34	3.43	4.45	5.04	4.95	5.44					
		Girls	152	1.32	2.02	2.63	3.84	2.47	4.95	4.75	5.04	4.75					
		All w. adult	198	1.32	1.28	3.64	8.51	5.66	6.15	5.75	6.15	5.75					
		All w. child	107	1.11	1.62	2.43	4.40	4.34	4.64	4.85	4.64	4.85					
E. A. Davis: Representative groups. Fifty re- sponses with an adult	1937a	Singletons															
		Boys	86										4.4	4.7	4.7	6.0	
		Girls	87										4.4	5.4	5.4	7.0	
		All	173										4.4	5.0	5.0	6.5	
		Twins															
		Boys	83										4.5	5.5	5.5	6.3	
		Girls	83										4.4	5.3	5.3	6.1	
		All	166										4.4	5.4	5.4	6.2	
		Only Boys	49										4.7	5.1	5.1	7.4	
		Only Girls	48										5.6	5.9	5.9	7.2	
		All	97										5.1	5.4	5.4	7.3	

² As reported by E. A. Davis in *The Development of Linguistic Skill in Twins, Singletons with Siblings, and Only Children from Age Five to Ten Years*. Minneapolis: University of Minnesota, 1937.

³ Data from two situations have been grouped in the analysis according to sex.

Table 11-1 continued

Author and type of study	Date	Group	N	Age													
				1½	2	2½	3	3½	4	4½	5	5½	6	6½	7	8	
M. E. Smith: Bilingual groups in Hawaii. Fifty re- sponses at play with children Young: Regular nursery school and relief nur- sery school cases. Large samples. Four situations	1939	All	1000		1.9		3.0		3.4			3.6		3.7			
	1941	Relief boys	20			2.8	3.0	3.9	4.2	4.3	4.5						
		Relief girls	17			3.1	3.7	4.3	4.4	4.6	5.0						
		Reg. boys	20			3.3	3.6	4.4	4.9	5.0	5.2						
		Reg. girls	17			3.4	4.1	4.8	5.1	5.4	5.9						
		All boys	37			3.1	3.3	4.2	4.6	4.7	4.9						
All girls	37			3.3	3.9	4.6	4.8	5.0	5.5								
Shire: Fifty responses with adult. First- graders from 3 parochial schools Hahn: Short samples (med. 70 words) with adult. 80% upper and middle class Short samples (med. 48 words) in 1st grade. "Share and tell" situations same group as above	1945	Boys	150	1½	2	2½	3	3½	4	4½	5	5½	6	6½	7	8	
	1948	Girls	150												5.0		
		All	300												5.7		
		All	116												5.4		
																6.9	
			116												10.4		

Table 11-1 continued

Author and type of study	Date	Group	N	Age														
				1½	2	2½	3	3½	4	4½	5	5½	6	6½	7	8		
Anastasi and D'Angelo: Fifty responses. Matched Negro and white groups from mixed and unmixed neighborhoods. Lower socioeconomic levels	1952	Negro boys, mixed	14															
		Negro girls, mixed	11								4.53							
		All Negroes, mixed	25								4.48							
		White boys, mixed	15								4.51 ⁴							
		White girls, mixed	10								4.39							
		All whites, mixed	25								4.75							
		Negro boys, unmixed	11								4.53 ⁴							
		Negro girls, unmixed	14								4.60							
		All Negroes, unmixed	25								3.86							
		White boys, unmixed	11								4.19 ⁴							
Templin: ⁶ Fifty responses with adult. Representative group	1953a	White girls, unmixed	14							4.58								
		All whites, unmixed	25								4.85							
		Boys	120								4.73 ⁴					6.73	7.34	7.25
		Girls	120								5.35					6.35	7.16	7.85
		All	240								6.11					6.53	7.26	7.55
											5.74							

⁴ Means for total groups combined computed from data supplied in A. Anastasi and R. D'Angelo, A Comparison of Negro and White Preschool Children in Language Development and Goodenough Draw-A-Man I.Q. *J. genet. Psychol.*, 1952, **81**, 147-165.

⁵ Figures made available by the courtesy of Dr. Templin. When complete study is published data will be presented for 480 cases from 3½ to 8 years.

Much interest is shown in make-believe activities in which children personify and attempt to portray excerpts from television plays and adult performances. Home and family, doctor and patient, cowboys and Indians—all may be portrayed by the use of such objects as dolls, various household tools, toys, and miniature make-believe human and animal creatures. Children secure much amusement from seeing and meeting children and adults, as well as animals in the neighborhood. They may organize parties and drink from empty cups, eat from an empty table, and sell, buy, and exchange their toys. All these activities are accompanied by much self-centered and sociocentered conversation, exhibitionism, and many other attempts to amuse others and influence their physical and social environment.

The preschool age is marked by a noticeable expansion of intellectually geared curiosity, the desire to conceptualize, and attempts to act in accordance with “thought out” conclusions. Washington’s cherry tree episode is repeated within a variety of contexts. The first intellect-oriented question “What’s that?” is now vividly supplemented by frequent “Why?” “How?” and “What for?” questions. The child begins to understand and appreciate information about the purposes various objects serve, what makes things “work,” and where they come from. It is good for the child to have parents and other adults answer such questions adequately and in this way promote the formation of correct concepts because the child needs an accumulation of workable knowledge before he begins his formal education. Question-and-answer learning permits the exclusion of much trial and error. G. L. Fahey’s study [4] estimates that on the average, questioning accounts for 10 to 15 per cent of preschool children’s conversation. He suggests further investigations to assess the meaning and implications of children’s questioning activity.

PROGRESS IN SOCIALIZATION

When the child enters the preschool phase of life, he begins to show much interest in individuals of his own age. The infant’s social interest centers on his parents. Their acceptance satisfies the desire to interact with others. Beyond this, social interaction is casual or environment-enforced as in the case of a large family. The infant experiences a threat whenever a parent, especially his mother, leaves him, and the fact is prominently on his mind during her absence despite a substitute’s effort to entertain him. Now the child begins to care less when a parent is leaving him provided there are other individuals who attempt to entertain him. Group life exercises increasing appeal for him. His eagerness to learn various group activities and to assume assigned roles is evidenced in many interindividual situations, especially during the fifth and sixth

year. Parallel play is readily abandoned for the sake of associative and cooperative play as soon as the child becomes acquainted with others. Yet if the proportion of time spent with others is extended, tears, quarrels, reproofs, and occasional minor hurts usually accompany all the vivid forms of social interaction, pointing to the need of direct adult supervision to avoid possible deterioration of social manners.

Parents have a challenging responsibility to provide opportunities for early social experience. It is their task to stimulate adjustive and cooperative tendencies through verbal instruction and experiences. They may have to moderate the child's desire to dominate, to secure the limelight, and to be excessively possessive, all of which interfere with progress in socialization. When parents perform their part, this task is likely to be successful because the child from the age of four on has a strong desire to please the adult.

MORAL AND RELIGIOUS EXPERIENCE

During the preschool years the child learns to recognize the boundaries of his behavior. Because of parental verbal conditioning, some forms of activity are seen as undesirable or regrettable. At this age, the child can be taught moral values and principles of justice and honesty in fair play. In reference to some more obvious situations, the moral sense will respond and gradually deepen in its manifestations unless parents are unwilling to make any contribution of this kind through instruction and example. Progress in moral conduct is largely dependent upon inculcation of moral concepts. These, in turn, must be closely related to intellectual maturation and emotional identification with the ideals suggested.

Religious experience often commences with interested observation of specific acts, such as the sign of the cross or a short prayer like grace. The introduction of religious articles and the explanation given to questions pertaining to them afford another opportunity for religious instruction.

At five and six years of age if not earlier, the child is capable of understanding all fundamental religious concepts, such as the idea of God as the Creator and the heavenly Father, the meaning of prayer, of heaven and angels, of hell and devils. Illustrated stories of the life of Christ and stories from the Bible and about the Saints can provide the material and a further incentive for a comprehensive religious education. The child's curiosity and natural susceptibility to a variety of religious experiences assist greatly in the implantation of moral guides in understanding the major purpose and meaning of human life [8, pp. 48; 135 ff.].

SELF AND PERSONALITY DEVELOPMENT

Although infancy marks the beginning of personality development in most of its dimensions, the preschool years contribute much toward its differentiation and total integration. Various personality factors operating within the child are highly affected by environmental stimuli. Since the young child is consistently exposed to the social stimuli of his parents, other children, and other adults, and establishes strong interactional ties with them, his personality and natural tendencies are verbally molded by them. Through reinforcement, the earlier responses acquire an increasingly greater strength and promote trait, habit, and attitude formation. Parents may enjoy and reward the relatively mature responses to everyday situations, including frustrations, and by doing so promote maturity; conversely, if they are pleased with certain immature habits and behavior on the part of the child, and respond favorably to them, they deprive him of incentives to grow. Preschool training may lack moral and religious instruction. It may even omit stimuli for the development of an attitude of self-worth. It may disregard any cultivation of the positive emotions and sentiments, and miss providing any more mature companions. Any such omission may act as a handicap for wholesome progress in personality development, and dispose the child toward various inadequacies and maladaptions to reality. Attitudes of dependence or inferiority may emerge as a consequence and plague the child now and during adolescence and adulthood.

At this stage of development, the child's beliefs, attitudes, and traits are also significantly affected by his association with neighborhood children and all other individuals he meets. If any major difference with others exists, e.g., in reference to discipline or language, it may be a sufficient reason for the formation of some kind of coarse association and may form a basis for an undesirable attitude.

While the infant's awareness extends over various environmental factors, other persons, and certain aspects of his own individuality, the preschool child soon attains a very definite self-consciousness, and as the months and years pass, he makes significant progress in self-organization. His traits, attitudes, and habits become incorporated into a personal self-system, a new object of his observation, a new frame of reference for his assertion as a personality. The self is a perceiver, knower, and judge of the person in his over-all dimensions, qualities, characteristics, roles, and relationships. A. T. Jersild [5, pp. 179-180] explains self as a composite of thoughts and feelings which constitute a person's awareness of his individual existence, characterized by perceptual, conceptual, and attitudinal components. "As the child matures, his self-hood is the sum and substance of his own existence as a human being."

Psychologically then, the child becomes more removed from his environmental context and from other persons. At times at least, he may suspend activity in order to think and estimate or to delve into his feelings and fantasy. By disregarding some existing objects and persons, he may restrict his psychological frame of reference. Such self-preoccupation is frequently superseded by a desire for social interaction. As his mind works, he finds out that he has a secret to tell someone he loves. In the case of a white lie, this should not call forth any reprimand at this age since the child merely experiments with his developing abilities and often does not make a clear distinction between sensory perception and other forms of imagery.

Landmarks of his ability and limitation as appraised or imposed by others and his environment may be perceived acutely, examined, and his own conclusions drawn. Loss or change, such as the loss of cut hair or a tooth or a change in the typical appearance of his parent, often stimulates fearfulness and deep concern about self-identity and the identity of others close to him. During the fifth and sixth year, the child consolidates most of his new developmental gains and usually accomplishes their over-all organization in his particular personality pattern. In such a case, he becomes a more secure and self-reliant individual, who possesses a mode of adjustment to his problems and is able to tolerate quite a bit of anxiety and frustration.

QUESTIONS FOR REVIEW

1. Specify some motor controls attained during the preschool years and indicate some basic implications of these achievements.
2. Indicate some differences between toy play and make-believe play.
3. List and describe emotional developments during preschool years. Explain the need and role of parental affection.
4. Enumerate and describe the major tasks of speech development. Indicate the role of bilingual education.
5. What are some of the questions frequently asked by children? Why should parents answer the child's questions carefully?
6. What social tendencies have to be encouraged at this age? Why?
7. What makes a child a moral being? What are the indications that the preschool child is susceptible to religious experiences and concepts?
8. Indicate some signs of the child's self-awareness. How does self-awareness affect child personality?

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Middle Childhood

THE MIDDLE years of childhood encompass the sixth, seventh, eighth, and ninth years of the child's life. School readiness and the actual entering of school, extension of intellectual horizons, increase of moral and religious motivation, great interest in peers, expanding independence from parents, and improved self-identification are the milestones in this phase of development.

The phase commences with some somatic disequilibrium due to the continual loss of the first set of teeth and emergence of the first permanent molars, as well as susceptibility to colds and infectious childhood diseases. Passive withdrawal, dawdling and impulsiveness, increased excitability and inconsistency, oscillation and mental conflicts characterize the psychological tendencies at this age for at least some time.

Beginning with the seventh year, a slower growth in height and weight enables the child to gain symmetry and balance in both physical performances and mental operations. Control over the large muscles approaches its completion, while control over the small muscles is moderately advanced. Since the child's energy amounts are great at this phase, he is constantly in motion, but he increases his caution. Active play, such as running or catching, playing ball or riding a bicycle, and jumping rope or dancing, may be practiced until exhaustion unless adults direct such activities. The child is now interested in and delighted with his accomplishments. The desire for appreciation from others for his performances is great. A further endeavor is readily stimulated by adult interest in the child's activities.

Water, sand, and dirt play may be engaged in for hours by both boys and girls. Boys are very interested in constructive play, where they can use simple mechanical devices, such as hammer, knife, scissors, scooter,

and bicycle. Girls and boys enjoy drawing as one of the finest self-expressive activities, portraying reality as it is imprinted on their minds. As the child's education is advanced, drawing takes on definite meaning, form, and accuracy. Coloring and finger painting is another attraction to the child of this age, especially to the emotionally disturbed child. Many children take up collecting coins, coupons, marbles, stamps, and comic books.

SCHOOL ENTRANCE

Many factors are continually shaping the personality of the preschool child. In all individual cases these influences vary in kind and, especially, in degree. Some factors exert a considerable pressure at a certain age and then decline in their influence as new factors enter the stage and modify their roles. By the time the child enters school, he has been exposed to a variety of family influences and to the physical and social factors of his neighborhood. Furthermore, he has met many adults and children who affected his mind's receptive apperception and motivations in countless ways. The afore-mentioned influences produced readiness and an actual emergence of certain traits, attitudes, and generalized response patterns. From his mother and father the child received his first training and education, and these were enriched by his outside contacts. Because the child's education is advanced at the time he enters school, the school will act as a supplement to the family in promoting the child's intellectual, social, and personality developments in their many and intricate variables. Beyond that, the school situation is unique in many ways. Here the child is first entrusted daily to another adult and gets into a large group of peers, most of whom he does not know in any way. In this group situation he will spend a great portion of his day, and his abilities and social adjustments will be challenged. From this point of view, the child entering school is a typical beginner whose success or failure depends much on his level of maturity, which, in turn, implies mastery of the preschool tasks and a general preparation to face the forthcoming school responsibilities. Let us examine at least a few major categories of school foundation tasks and see whether or not an individual child has a satisfactory experience reservoir on which to rely in making new situational responses at school.

The child's separation from his family and neighborhood environment necessitated by school entrance is successful only when the child is ready to make satisfactory adjustments to the novel aspects of school life. The child's ability and his preparation are two outstanding factors in school adjustment. The child's ability depends much on mental development and on progress in doing things for himself. While mental maturation

can be only moderately advanced by educational home environment, the development of personal habits and skills is closely related to opportunity and encouragement. Praise for attempts to dress up, to button clothes, and to put on shoes almost works miracles in the child's mastery over his apparel. His success in these simple daily activities helps to establish feelings of adequacy.

The child's preparation for school includes his frequent exposure to social play situations, in which he is taught to assume roles and to cooperate with others. His ability to interact efficiently with other children is usually indicative of a proper emotional development, including control over the infantile forms of excitability and anger.

Language skills are directly related to a child's education. A school child has to be able to communicate comprehensively his needs, thoughts, and experiences. His intellectual curiosity is verbalized by the "How?" and "Why?". These and similar questions indicate the child's level of understanding as well as the subject matter in which he is "most teachable."

Prior to entering school, the child's interests have been self- and parent-centered. The extent of interaction and sharing has been limited and for the most part a one-way process unless the child was one of several siblings or the sense of give-and-take was stimulated by his educated parents. Emotional impulses and other forms of self-assertion typified many of his responses, while cooperativeness in playing and doing things together was usually of short duration.

C. V. Millard [2, pp. 6-8] questions whether the typical first-grade school environment is compatible with the inevitable stormy beginning in a new developmental phase. The cultural demand of school attendance comes at a time when many children are not as yet ready in terms of either their maturational level or psychological development. "Even under the best of circumstances the inability of first-graders to behave consistently will result in much confusion." In school adjustment, most six-year-olds often appear to be regressing rather than progressing in knowledge and behavior. Physiological instability and new demands at this level produce moderate or severe strain. In kindergarten a child often made letters without any particular difficulty. As a first-grader he may write them backwards. He may read a few lines in a story one day but on the next day fail to recognize any of the words. Because of his lack of maturity in personal-social relations, he naturally will and must make mistakes since he is confronted with more problems than he is ready to solve. His errors usually are those of going to one extreme or another. He becomes insistent and aggressive or meek and hesitant, or he may attempt tasks beyond his potentialities. In school and on the playground, he has the urge to win, to conquer, to subdue.

Explanatory and illustrative material from *Mental Hygiene in the Classroom* [7, p. 48] describes entering school as a period of stress. First-grade teachers know that each year they are apt to have at least one beginner who will cry, run home, refuse to participate in group activities, or cling to his mother when she brings him to school. The reasons for this behavior vary; one child may not be accustomed to a group, while another may have a fear implanted by some older child or adult through stories of punishment a teacher may inflict.

Andrew, an only child who has just entered school this fall, is causing his teacher much concern. He cries, does not play with others, and runs home when he gets the opportunity.

Several contributing factors are suggested in the situation: (1) probably he has been overprotected at home; (2) probably he is not very well; (3) probably he is naturally stubborn.

The assumption that the child is naturally timid or stubborn is a mere evasion of the problem. The judgment that the child is ill is probably wrong since when a child is really ill, he usually runs a fever and exhibits other symptoms which generally can be recognized by both parent and teacher. The first response seems to best fit the situation. Adaptation to school is difficult for beginners, especially if they have had few playmates of their own age, and if they have been overprotected.

A teacher's approach in dealing with a "problem child" in school may be illustrated by the following brief case account [7, pp. 40-43]:

A teacher discovered among her pupils a child whose home life was very unhappy. The girl came to school with a disturbed frame of mind and was often rude to her classmates as well as defiant toward her teacher. The teacher was sorry for her but felt that the standard of discipline for the room must be maintained. Several modes of treatment are possible in such a case:

1. Be strict with her, punishing her when she commits an antisocial act, for she must learn that conformity is expected regardless of one's frame of mind.

2. Insist that she conform to the same standards that the other children follow so that they will not think that she is favored.

3. Deal with her as a special case, attempting to make her happy in school and aiding her whenever possible in deriving satisfaction from her school work.

When a child irritates the teacher by not conforming to the school routine, there may be an inclination to punish psychologically if not physically. If teachers would always attempt to discover causes of the difficulty, punishment could often be avoided. While it is admitted that teachers must maintain order, there are more constructive ways of doing this than through fear. If conditions out of school are such that the child brings to the classroom a disturbed state of mind, sympathetic and understanding treatment is more likely to bring good results, or at least they will not add to the trouble. It is unwise to meet the unhappy, defiant child with set rules and rigid discipline. It is

better to study and help such a child achieve satisfying companionship and successful accomplishment in his school work.

A teacher may have to make many efforts in helping a child develop a satisfactory level of self-control by getting him to recognize that discipline and punishment are not merely teacher-imposed, but are a natural consequence of his acts.

A child with a temper tantrum was segregated from the group with the understanding that the group did not like to have its work and play disturbed in this manner. The child's recognition of the natural disadvantages of misbehavior was ultimately more helpful to him than obedience enforced through fear.

A class may present a situation of continuing tension and frustration for a considerable proportion of children who are slow learners [8, situation 1]:

The third grade in school "X" is composed of children whose intelligence levels vary from the gifted to the dull. In this particular class there is a slightly larger number of slow learners than in a normal distribution of school population. Six children in the class just cannot seem to keep up with the rest of the class, no matter how hard they try. A few of these children are beginning to show what might be considered as expected reaction to such a situation of daily defeat by seeking an escape through truancy.

One or two others are reacting to their frustration by aggressive, class-disturbing behavior. One child is becoming more withdrawn and defeated day by day.

As is true for adults, the feeling of successful accomplishment is essential for children in developing wholesome attitudes toward themselves and toward others. Some degree of success should be possible for every student if sufficient sensibility to the need for such success is present in the minds of teachers and school staff and a sufficient variety of appropriate learning experiences is provided.

A class situation may develop in which tensions and hostilities arising among individuals or cliques are allowed to become magnified.

Two pupils with potential leadership ability but with different ideas about how a certain field trip should be conducted, get into an argument about it, in which personalities clash. The argument about the field trip is settled by a class vote giving a fairly substantial majority to one side, but a small group of die-hards rally around the defeated leader and become an "opposition group" toward all suggestions coming from outside.

The opposition is one of feelings, not of ideas. Some aggressive expressions of hostility develop toward other members of the class, toward those in authority, toward school property. At the same time, certain personality

stresses and strains develop in some individual children as a result of this, even though they do not find any overt expression in the group conflict.

Can something be done to keep group differences of opinion from becoming a spring board for antisocial group aggressiveness? Prevention is often an answer to such problems.

Tensions and hostilities between individuals and groups can often be prevented from developing serious consequences if they are recognized at the beginning when the causes can be traced and dealt with more readily.

Upon entrance to school, the child may learn for the first time that there are certain ethical principles and standards which must be respected in order to secure full acceptance and status within the group. By exposure to direct and indirect training, the child learns to observe rules, to accept the discipline as a necessary component of his school life, to play fairly, and to assist others as a means of promoting his own standing within the group and in respect to the teacher. The previous goal of securing acceptance at home is now amplified to include gaining the teacher's favor.

During the first year in school, the child's abilities are magnified and expanded in many directions because new stimuli and new subjects are introduced and reinforced by the group reaction. The child is given tasks and projects which, in order for him to achieve good results, demand a certain amount of planning and persistence. In the case of any satisfactory accomplishments, he is praised by the teacher and other children. This tends to instill a feeling of achievement, of pride in his own ability, and ultimately it promotes self-confidence. The child then is ready for new and more difficult problems to master.

[A teacher's guiding influence is manifold. She (or he) must use her imagination, a kind of friendly enthusiasm, and a play spirit, which enable her to live partially in a child's world in order to experience vicariously and express in her behavior the feelings, attitudes, and emotions she desires to develop in the group of children. She must make personal efforts to be alert, compassionate, and well balanced. Self-confidence and poise, high moral standards and a sense of humor, refinement and qualities of leadership are other personal attributes contributing to her success in motivating learning and molding individuals and the group into a democratic pattern of living. The teacher is the responsible agent for every situation that emerges in the classroom. She has to encourage projects and activities which will reap satisfying results and discourage those in which success cannot be anticipated. Hence, she helps children to formulate their goals and to plan, execute, and evaluate their performances. She needs a genuine interest and love of children, knowledge of child development, and in addition a good training in educational methods and skills.]

Teachers' attitudes are basic components in the child's education. The following are the attitudes expressed by three teachers concerning pupil behavior [7, pp. 61-62]:

1. Teachers should watch all children constantly, stopping them promptly the instant they get into mischief. All privileges should be temporarily withdrawn for the offense.

2. When a child does what is wrong from the adult point of view, he should be withdrawn from the group so that he may think over his misconduct in solitude.

3. When a child behaves in a socially unacceptable manner, the adult should explain what the right mode of behavior is and why it is right.

Desirable conduct must be explained to children by means of a sympathetic discussion, without embarrassing them. A private interview is an excellent mode of conveying information and stimulation toward right conduct. Responsibility for children's mistakes in behavior is often due to failure on the part of parents and teachers to explain. With most children explanations have to be repeated several times even when the adult's relationship with the child is marked by rapport and understanding.

By getting along with the group and performing routine duties and tasks, the child develops some freedom of action and self-reliance. Yet he has frequent opportunities to recognize the need of interaction and the desire for assistance, the two wishes promoting the process of socialization. As the child's experience broadens, he learns to foresee and to work for more remote goals and in this way contributes much to his own maturity. Thus, going to school is one of the great milestones in the life of any child.

INTELLECTUAL DEVELOPMENT

In a series of books and articles, J. Piaget, an outstanding French psychologist, pioneered a major study on the child's mental development. By means of systematic firsthand observations and experiments, he worked out many techniques to gain factual data about language development, the process of thought, and concepts about various reality factors. At the Maisons de Petits in Geneva, Switzerland, Piaget and his associates recorded most of the speech of a number of children over a period of a month and supplemented their free talk with questions designed to test the validity of hypotheses suggested by the analysis of the records. One of the final evaluations revealed the coefficient of (or tendency to use) egocentric speech. For the group of children aged three to five the coefficient ranged from .54 to .60; for the group from five to seven it was down to about .45. From about seven years on the child's speech becomes sociocentric [10, p. 257]. Egocentrism prevents a child

from taking a point of view that he has never experienced himself. A child deals efficiently with situations which he believes are true.

When Piaget asked children, "When you go out for a walk, what does the sun do?," the responses indicated a conviction that the sun followed the children constantly. Some of the children believed that the sun watched over them or looked to see if they were good or naughty. At the age of eight, children began to show doubt about the idea that the sun followed them. Only much later were they ready to accept the theory that the sun stays in the same place all the time [9, pp. 214–219].

Many apparently obvious relationships are also not clearly recognized by children. Piaget's illustration of the Genevan children of eight, who say they are Genevan yet deny being Swiss, although they state correctly that Geneva is in Switzerland, serves to indicate this [10, p. 122].

A monograph on the Harvard Growth Study [6] and a later reanalysis of this data by E. L. Cornell and C. M. Armstrong [5] offer many insights into children's mental development as well as indicate their applications to educational guidance of children. The desirability of classifying pupils by their growth patterns rather than by chronological age is brought out. A child whose IQ is 130 "grows" mentally 1.3 years of MA each year, while a child with an IQ of 70 "grows" 0.7 years of MA each year. Certainly these two children have different degrees of readiness for learning the three R's when they enter school and later on in their school career [5, pp. 199, 202].

As a child grows and learns to adapt himself better to his expanding environment of things and persons, he acquires more abstract concepts, becomes more objective and consequently less self-centered. The middle phase of childhood then begins to expire.

DEVELOPMENTAL TASKS

A person in middle childhood has most of the human qualities and abilities at his disposal. Most of them are specialized into skills at this stage of growth. New fields of application open up, and the child has to be ready to move himself in. Most children are sufficiently confident and aggressive to make excellent use of their early years of education at home and in school.

1. *Knowledge in school subjects.* Learning the fundamentals of school subjects, such as reading, spelling, writing, and arithmetic, is crucial at this level of development. The ability to apply one's expanding intellectual powers reaches science-oriented dimensions. The child is interested in practical application of his school subjects. Many children question their parents and teachers with this frame of reference.

2. *Recognizing social role.* The development of effective relationships

with parents and others is based on recognition of individual differences and peculiarities. The child explores and assesses others and their social roles. He allies with individuals who support him and develops loyalty to them; he also tries to come to terms with others who are seemingly antagonistic to him. He shows eagerness to acquire behavior and manners appropriate to his roles and sex and learns to relate himself to the roles of others.

3. *Emotional control.* At this age, expansion of self-control is typically applied to one's feelings, emotions, and drives. The child readily sees a need for it. He explores and uses acceptable ways of releasing energies pertaining to negative emotions. In this way, the child promotes his acceptability as a personality. A balance between readiness to help and to be helped is often established before the stage expires.

GROWING INTO CHILD'S SOCIETY

Middle childhood inaugurates the years of advanced socialization with one's own peers. The child's desire to participate in the group activities of his peers is usually strong. Whenever groups of children assemble in the neighborhood, playground, or classroom, they soon form some lines of association and interaction. Socially cooperative activity comes into prominence. Quarreling, rivalry, and fighting become occasional rather than typical. Attempts to adjust to others are frequent. As the social interaction progresses, the individuals assume various roles, often in accordance with their interests and abilities. The child realizes that in order to be accepted he must act in a prescribed manner. Some children come to the fore in the appreciation of other playmates. They feel pleased and secure in an admiring group, but the efforts of others, especially younger children, to join them are resisted. Some of the decisive factors in the constellation of attraction and rejection are linked with security in the home environment, common goals, values and attitudes, resourcefulness, and personality factors.

Rudeness, loud talking, tattling, and the tendency to blame others are some of the self-protective dynamisms of insecure children. These are their ways of seeking to maintain their self-respect in the face of failure at successful group participation. Such children need satisfaction of their most immediate psychological needs in order to make them start reaching out toward more satisfactory group contacts.

The need for others as companions grows in strength. Toward the end of this phase, the child approaches the "gang age." Group identification and sentiments of pride, loyalty, and solidarity become powerful drives toward social intimacy of late childhood. The next chapter deals more extensively with the group life of the child.

RELIGIOUS AND MORAL KNOWLEDGE

Expansion of intellectual horizons on one hand and peer interaction on the other are two additional factors contributing to the appearance of questions pertaining to the domain of religion. The capacity to distinguish between what is right and what is wrong gradually deepens. It can be applied to many situations in the life of the child if his inquiry is supported by instruction in moral concepts and principles. Otherwise, it remains precarious and at times confusing. The self-initiated practice of moral values and virtues, such as honesty, justice, and fortitude, may readily set in as the moral education advances. Embrace of others in such a pattern of life follows. Doing good for the sake of others begins to exercise some appeal. The circle of others typically includes the parents, family, and a few other close individuals. Then it may expand and encompass individuals and groups to which the child is in some way related.

The child's striving for approval and praise grows with age. Before this phase expires, fairness becomes one of the leading traits. Locating the person who starts any trouble means much to the child. It is important to get at the facts before any disciplinary action is taken. The child will take punishment as long as he realizes he deserves it. He is now more sensitive to public criticism and reproof because threats to his social prestige are difficult to accept. "Losing face" pulls a child down and often gives rise to feelings of inferiority.

GROWTH OF SELFHOOD

Increased independence from parental supervision and daily exposure to a large group of peers and to a teacher offer the child ample opportunities to develop a self-concept consistent with evaluation coming from several sources. Attitudes toward self are largely defined by appraisal by others. Parental estimation may have been somewhat one-sided whether favorable or not. If evaluative remarks were largely negative, the child's self-concept was necessarily distorted into a lack of self-acceptance and emotionalized self-assertion. At a later point, intra-aggressive tendencies began to be generated and a personal conflict felt. The situation may somewhat correct itself with expanding relationships and more objective remarks coming from the teacher and other children. A school child's self-appraisal is largely based on such appraisals by family and by others.

Growth in selfhood is only in part autogenous. Much of it is elicited by others with whom the child identifies himself. The child's efforts in correcting his behavior and avoiding exhibition of disapproved traits is also a factor in self-growth. Any improvement or expansion of self-control is a sign of increasing ego strength unless it involves repression

of strong drives. In such a case, internal conflict develops and raises the level of tension.

A child's self-control often has external origins. The child may begin to control his impulses when he wants to please his parent. He may inhibit one of his drives when he recognizes it as a reason for punishment. A child may show much ingenuity for gaining acknowledgment or praise. His parents' or teacher's sensitivity in responding to the child's efforts may do much toward development of desirable traits and interests.

Parental direction of activities at this age is often helpful to the child in many respects. It helps, for example, toward establishment of internal control. External control helps him to acquire some new and useful habits and skills. Without some environmental conditioning the child's endowments are neglected. Instead, undesirable and maladjustive reactions get hold and often become habituated.

Extensive conditioning, however, cuts down the child's initiative severely and makes him dependent on others. Such domination is likely to restrict curiosity and playful exploration of his environment. If restricted, the child cannot come to a full utilization of his internal endowments and assets to his best advantage. As a result, later adjustments and developments of self-direction become too difficult goals for which to strive. The dependent child may have little confidence in his adolescent drives for independence.

QUESTIONS FOR REVIEW

1. What changes mark the entrance into the phase of middle childhood?
2. What are the typical interests and activities at this period of development?
3. Indicate some abilities and skills which are necessary for school adjustment in the first grade.
4. Identify and describe the major findings of Piaget's studies on reasoning and language of children.
5. Explain the teacher's role in the child's educational and social adjustment.
6. What personality factors are operating in group acceptance and interpersonal companionship?
7. Under what conditions are moral principles and virtues best assimilated by children?
8. Identify the developmental tasks of this phase of life and explain one of them.
9. How does appraisal by others affect the child's self-acceptance?

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Late Childhood

THE MAJORITY of children attain this level of maturity at approximately nine years of age. This last phase of childhood proper is also referred to as preadolescence. It expires with the oncoming puberal changes described in the following chapter. The years of late childhood are marked by an increasing growth in critical ability, by theoretical questioning about causes and effects, by resistance to adult expectations, and by emotional identification with compeers. Interests and activities begin to reflect the child's sex more closely. Furthermore, this stage of childhood is characterized by substantial gains in emotional self-control and readiness to assume responsibility for one's own actions.

Rapid acceleration of peer-group influence, discussed at length in the forthcoming sections, makes it one of the most influential factors in the young person's motivation. In various respects parental and other adult control subsides. Time and again the parental grips are outmaneuvered by molding factors of the group life. Children's ability to size up both parents in terms of their moods and probable responses is now very much refined. Most older children know how and when to get certain privileges from them. They may efficiently play upon the feelings and sentiments of either parent. When younger, they endowed their parents with all-seeing and all-knowing powers. Now, a dethroning process commences. This can be very disturbing to a parent who does not understand the shift that is taking place in the child's social standards and expectations. The preadolescent often rejects what grownups consider to be good manners; he criticizes everything and everyone, lacks consideration for parents, and behaves boisterously. All these are characteristics which adults find difficult to overlook. Despite these ventures, the child needs the warmth of an integrated home. Here he wants to heal the wounds inflicted on his self-esteem by some of his companions. In times of trou-

ble, whether he or someone else is the cause of it, he needs the support of his parents. He desires a full understanding when the fruits of growing up turn a little bitter.

In relation to his siblings, the child at this age is impressed by older brothers or sisters, while younger children are seen as inferior in prowess and their company is unwelcome in his thrilling exploits. Squabbling and rivalry among siblings are almost unavoidable. The child may be friendly one minute but scrappy as an alley cat the next. Occasionally he may derive sheer delight from embarrassing, bullying, or tormenting others, yet extreme forms of these acts are usually avoided. Sibling support and companionship is often sought. At this age they readily "gang up" against their parents.

NEW HORIZONS OF UNDERSTANDING

The completion of the first four grades of school usually implies some competence in the fundamental abilities and skills necessary to acquire further and advanced knowledge. Most children are now ready for a more complex curriculum. Their interest in extracurricular activities increases noticeably too. The fourth grade is often the first grade in which the child is pressed to use abstraction and judgment in addition to retention. Arithmetic and social studies begin to lead beyond memorization. Therefore, some children make a spurt ahead in their standing, while some others begin to have difficulties. It is then necessary to see that the less able children are not left with a completely frustrating sense of defeat. It is better for the child when teachers try to better his own accomplishments, rather than motivate him to compete against the more endowed students.

Now he is ready to read something for himself, to deal with fractions; his sense for history improves; he is ready to observe, abstract, and generalize; he now takes notice of individual differences. He has little difficulty understanding explanations whether these are related to right and wrong, to social manners, or to cultural matters. At this level, children often develop interests and ideas of their own. These are the consequences of their previous experience and present thinking, elicited by movies, friends, and other influences. Children are eager to learn more about their immediate environment, their country, other nations, and the universe as well. Interests and knowledge about world history, geography, and the secrets of nature gradually gain in depth and understanding. Their motivation to master new skills and techniques is dynamic and consistent. Nine- or ten-year-olds may spend the entire afternoon with a chemistry kit, a book of interest, or a knitting task and work hard in order to learn more or to accomplish something. Much time is spent

in group projects, athletics, and other social activities which now seem to take preference over school work and time spent in the companionship of parents.

The progressive-education policy of not retaining a slow-developing child but allowing him to pass on to the next grade level soon places almost unsurmountable obstacles in his own academic as well as social self-assertion. Children who have not acquired the knowledge and skills of previous grades have little foundation enabling them to be eager and interested in the more advanced and complicated subjects and procedures. Fear, worry, insecurity, and feelings of inadequacy all may be stirred up and lead to generation of anxiety which, in turn, may disturb the physiological and mental functioning of a child.

Compulsory promotion is based on the child's social integration. Group identity, it is believed, plays a key role in the child's security, promotes his feelings of adequacy, and contributes substantially to his emotional growth and adjustment. Whether this really does outweigh the undesirable influences resulting from lack of academic success and little success in all other activities is indeed questionable. It is felt that such a situation leads to more serious academic deficiencies later, which, in turn, will germinate further emotional problems.

PEER LIFE

During preadolescence peer interaction reaches its peak for the phases of childhood. Boys and girls show much eagerness to join others of their own age and status. They readily develop emotional attachments and experience pride in their friends and in being looked upon as a member of a group or organization. Group plays, team games, and seasonal athletic activities exercise much appeal and result in many vigorous engagements. Everyone feels obliged to assume a role assigned to him by others and to contribute to the preferred group activities. Obedience to a leader and conformity to the group standards in their basic respects is a general prerequisite for complete acceptance. Common interests, standards, and ideals are some of the major factors attracting children to groups.

In order to gain excitement, engaging in adventures is frequently one of the objectives of group life. Much depends on the suggestion of the leader. The child who surpasses other members of the group in strength or in achievement in preferred activities usually has a direct opportunity to assume leadership of the group. Awareness of the likes and dislikes, of the interests and social ideals of other children adds much to this leadership potential. Friendliness, enthusiasm, daring, and originality are other qualities highly appreciated by children. It is not unusual when a child with delinquent tendencies becomes a leader and the whole

group follows his ideas and contributes in the performance of some delinquent behavior.

Companionship of one's peers is urgently needed and constantly sought. Many children come to school simply to be and play with their companions. Two or more children with similar needs or interests are likely to form an alliance for they can understand each other's desires, and the association is gratifying to each of them. The gang is a result of many spontaneous efforts on the part of children to form a society adequate to meet their needs.

Cooperation and competition run high during this stage of development. A child may often develop an intense drive to work untiringly in order to beat others, including his best friends. Motivation to make a showing for himself in order to gain approval or prestige is dynamic. When rivalry between groups is involved, he is likely to exert himself as much for "his side" as he will for personal recognition. Competition has some advantages as well as disadvantages for older children. In the process of competing, the child may discover capacities within himself which he had not otherwise realized. It also helps him to assess the limits of his abilities.

On the other hand, competition will become harmful when a tendency to regard oneself as inferior is produced, or when it makes many other children unhappy. Group activities may also take too much time, and a child may be deprived of the opportunity to complete his school work, or may be neglectful of some responsibilities to his home. Some gang activities are surrounded by code language and other secrecies. Much depends on the members' class and living district, and on exceptions to their codes of conduct. In the group situation the child is less inhibited. Therefore, some undesirable tendencies may more readily gain free rein when support from others is secured. For example, conflicts and fights with other gangs and at times with the law-enforcing agencies sometimes occur.

The strength of group identification increases with the progress of this phase. The child now begins partially to transfer his emotional identification from parents to compeers. Peer ties may be marked by loyalty and solidarity. Since the group life engraves its imprints on the personality of the child, the parental influence gradually declines in favor of the former. Naturally these two influences operate simultaneously in molding children's preferences, interests, and attitudes. Under desirable circumstances these influences reinforce each other. More often, however, they conflict and oppose at least in some ways, giving rise to personal conflicts and anxieties. Increased participation in a peer society seems to reinforce resistance to adult standards and guidance.

The groupings at this stage are frequently homogeneous; members of

the opposite sex are rarely if ever included in the more compact and emotionally toned groupings. Generally girls engage less in group activities. For the most part their gangs are small, consisting of three to five girls. They usually meet at the home of one of them. Parents scrutinize a girl's behavior more carefully than a boy's. A more limited amount of freedom is granted to girls.

By means of gang activities, a child receives some important training in social relationships which could not be obtained with such success under conditions imposed by adults. Growth in cooperation may be magnified and conversational skills developed.

It has been suggested that "gang spirits" can be diverted to better-supervised channels of social activity through child clubs sponsored by schools and adult organizations. It is a truism that the Boy Scouts, Girl Scouts, and Camp Fire Girls exert a powerful influence upon the social and personality traits of children, yet it is questionable whether or not the adult-sponsored clubs can completely fill the need of the preadolescent to "go it alone."

Children's clubs and camps have to insure (1) sufficient guidance to secure wholesome activities, and (2) enough freedom to satisfy the child's preference for directing his own affairs in individual and group situations. When the child learns ethical conduct in an organization under competent adult supervision, he can be trusted to be guided by these standards when he is away from adults.

SEXUAL TYPING

Sexual typing may be understood as a process of intrapsychic identification with those personality qualities and traits which pertain to one's own sex. It begins with a closer identification with the parent of the same sex as soon as childhood commences. The boy's sex awareness at late childhood seems to be consistent with the lack of any significant sexual development during the phases of childhood. Many boys are interested in reading about the origins of the human individual and about interpersonal relationships. Some interest may also be directed toward the father's role. Affective attachments, however, are usually directed toward other boys who have similar interests and needs. Thus, playmates are almost exclusively boys. Girls' social and emotional ties are directed to other girls. At the ten-year level, the segregation of boys and girls is almost complete. Social contacts are marked by aloofness, lack of response, mocking, annoying and apparent contempt, and shy withdrawal. The cleavage is pronounced in the later part of preadolescence. Most boys and girls at this phase find that they do not like the opposite sex. Disparaging remarks are more frequent than occasional.

Ganging up and deriding members of the other sex also occur at this phase. Play activities and interests diverge sharply too. Boys prefer vigorous and competitive activities, such as sports, bicycle rides, hiking, and mechanics. Girls' interests center on clothes, handicrafts, art appreciation, household assistance, and other quiet or sedentary activities. Jumping rope, swimming, and skating appear to be their most active plays. Probably because of her closer association with the mother, the girl's perception of her sex-typed role is more advanced than that of a boy. She is more often embarrassed when conversation includes topics having a sexual connotation. She thinks more about her future role as a mother. Her interest in boys arises earlier, yet she may continue aloofness or scorn. Beyond the façade of indifference, she is eager to learn dancing, to develop her social manners and conversational skills. In many instances she is ready to interact and uses some means to attract boys' attention. Thus, she feels ready to make adjustments in her social relationships with members of the other sex.

Occasionally, strong hesitations to identify oneself with a sex-linked role occur before this phase expires. At the time of puberty changes, strivings for masculinity may appeal to a girl for some time and be attempted, yet do not gain strength as she advances into adolescence. Dangers of a too close and too deep association with members of the same sex are infrequent yet possible, especially when cross-parent relationships are poor. In the case of an absence of the cross-parent relationship due to death, divorce, or separation, the child is deprived of a model from whom to assimilate the qualities and traits which relate to the sex role.

Association with and clinging to members of one's own sex appears to be a natural tendency restraining interpersonal relationships at this phase so that a maturing child may have time and opportunity to advance his orientation and adjust to his own sex. This then may help in avoiding conflict or confusion from contrasting urges possible at this age. Since significant persons in her environment usually expect a girl to show feminine qualities and engage in typically feminine activities, intimate relationships with other girls is of real assistance in meeting such adult demands. Furthermore, whether indirectly by providing special materials and opportunities, or directly by expressing their attitudes, adults discourage the girl's tomboyish behavior and strenuous or aggressive activities culturally associated with the role of a boy.

SELF-CONCEPT AND PERSONALITY

At this phase, a child consolidates his personality gains of the earlier years. The concept of self undergoes new developments as his identity

becomes more related to peer society. He also attains a new level of self-expression in advanced school work and gang activities.

The person's experiential background has outlined the contours of his view of himself. Except in some cases where considerable damage to the concept of self-worth has been produced, the child considers himself as being good and capable of accomplishing his tasks. His own abilities and assets are usually estimated in terms of school standing, athletics, or popularity. The child is ready to use his powers and prefers activity which tests his ability. He sets high standards and desires to perform well. The attitude toward self is thus based on an expanded frame of reference. Personal problems in relating to others, parents and peers alike, may give a child the impression he is changing for the worse. Parents may strongly reinforce this self-devaluation, especially if his efforts at self-improvement are not given careful consideration. Such efforts are frequent when a child recognizes the need for improvement. If permitted opportunities, he is able to capitalize on his own strengths and assets. The climate in which shortcomings are accepted is favorable to new growth. When faults are not accepted, he is forced to turn toward self-defenses by denial or rationalization.

The child's sensitivity to the approval and disapproval of people significant in his eyes increases. It now more definitely encompasses the reactions of peers toward himself. These reactions impress him even more as the stage advances. The less skilled children have many difficulties asserting themselves with their peers. Hence, the need of social facilitation and emotional support from adults may often play a crucial role in an individual's self-acceptance and his over-all adjustments to others. Development of some special capacity may be of much help to him. Thus, stimulation of athletic prowess, dancing skill, or ability to play a musical instrument may assist in socialization and personal maturation. Relating oneself efficiently to others is something that matters to both boys and girls, especially the latter. Learning the skills to relate efficiently, such as modes of conversation and etiquette, is a crucial factor in personality development.

CHARACTER FORMATION

The stabilization of psychological gains which takes place at this phase is conducive to character development. Character may be seen as a configuration of traits that are related to ethical and moral principles and virtues. Yet some outside prerequisites do exist for affecting and accelerating the development of character. Consistency of parental behavior in terms of values and principles, parental discipline, and the moral sense of parental responsibility are some of them.

Most parental behavior affects children. It influences them in a number of direct and indirect ways. If parents are internally guided by a religious philosophy of life, they accept a certain hierarchy of values and act in accordance with them. Children are often instructed about such values and the value-based ethical principles, such as honesty, truthfulness, fair play, loyalty, and responsibility to God for their personal acts. Emotional identification with their parents readily encompasses assimilation of parental conduct. Generalization and transfer of such behavior standards is then expanded to many aspects of a child's thinking and acting. Parental, church, and social reinforcements complete a reliance on such guides. Codification of principles and ideals commences. A child at this age understands practical necessities and is ready to modify principles or rules to fit circumstances.

At about ten years of age and later, most children are ready to assume increasing responsibilities toward others, such as baby sitting, patrolling the street crossing, or earning money by a part-time job in a store. Their identification with a duty or task assigned to them improves as the stage advances. The sense of right and wrong becomes more deeply assimilated. Most children will not cheat when they are sure of being trusted. With the advancement of control over the impulsive and emotional tendencies, parental and school controls assist the development of self-control based on ethical and moral principles. The foundations for adolescence and adulthood are consolidated. Religious motivation, when developed by instruction and example, reinforces in many ways the moral sensitivity. A desire to act consistently in order to fulfill the will of the Creator arises, and it is strengthened by religious practice. The child's devotion to religious practice becomes deeply entrenched in his mind only if reinforced by additional instruction about its meaning and by example set by parents and peers.

Moral and religious values gradually gain in power to direct children's behavior toward personally and socially desired goal objects. An increase in their guiding power makes the philosophy of life based on religion a manifest reality. It paves the way toward useful roles and identifications.

PREPARATION FOR ADOLESCENT TASKS

At each stage of development, a certain maximum is attained some time before the period expires. At ten to eleven, the majority of children arrive at their preadolescent maximum and appear to stop for a while. This, then, is a time for efficient preparation for forthcoming developmental tasks.

Peer identification is one of the first antecedents of later adolescent

and adult human identifications with persons of one's own age. At this phase, close peer associations are practically limited to members of the same sex. The emotional intimacy, however, reminds us of later identifications. Frequent peer activities in large and small groups lay the foundations for a personally gratifying postpuberal crowd and clique relationship.

As a child becomes more ready to respond to the information and the suggestion of his age mates, as the leader or majority rule of his peers is responded to, the child recognizes alternatives and expands his perspective. Then, in some home or school situations he may insist on acting on his own choice. Peer identification thus represents a major step toward self-reliance. It is noteworthy that a child of twelve or thirteen is occasionally concerned with and projects himself into a new cycle of development which will continue until the twenties.

Keeping adolescent developments and adjustments in mind, it is possible to indicate some specific preparation needed at this age to lay a groundwork for satisfactory later behavior and personality organization. Fundamentally this preparation consists of instruction on the part of parents and learning on the part of the preadolescent person. Since the school takes a major role in developing children's intellectual functions, the home is primarily charged with moral, religious, and sexual instruction at this level of development.

Throughout the phases of childhood, the growing person is at times exposed to information related to sexual matters. This information is bound to be incoherent and incomplete. Hence, advanced instruction is in place in order to correct and complete sex information as it pertains to the oncoming phases of life. The exact timing depends on many factors, especially the rising need of the child concerned. The beginnings of puberal growth in height and weight may be one of the more definite indicators of such a need because they are succeeded by sexual maturation. It is felt that the parent of the same sex may serve well as an informant. If he feels this is too difficult a task for him, it is his duty to get a satisfactory substitute. Teachers, physicians, psychologists, and clergymen are often well prepared to convey this information. The instruction is mainly concerned with the oncoming sexual developments and their basic implications. Books by Rev. Daniel A. Lord [3] and J. A. O'Brien [5] as well as some well-selected pamphlets [8, 10, 11, 13] may be of considerable assistance to the parent and sometimes to the prepubescent himself. The sex instruction presents not only the needed information but also seeks to convey the healthy attitudes which are so essential.

Explanation of some major moral implications is pertinent to the sexual instruction per se. Beyond this, most children need explanation of applications of right and wrong in various peer relationships and ac-

tivities, a clarification of the concept of virtues, and an analysis of the relationships between moral conduct and religion. Such information may facilitate the development of conscience that, in turn, will make it easier to act in accordance with moral principles and virtues. The foundation of a moral character will be laid and strengthened before the final style of life is set. A frequent and reverent reference to religious values and the meanings of religious practices is bound to strengthen religious motivation and assist in making it the all-pervasive and crowning experience of human life. With moral insight and conscience and with a penetrating religious experience, the young person has the best possible resources to face the tasks of adolescence, adulthood, and of life itself. In childhood, much depended on what happened in infancy; so too in adolescence, to which the two following sections are devoted, much depends on the developments and adjustments during the later years of childhood.

QUESTIONS FOR REVIEW

1. What are some new influences affecting the child's personality during the late years of childhood?
2. Describe the child's relationship to his parents and to his siblings.
3. How does an individual grow into child society? Describe the emergence of a gang.
4. What are some of the outstanding goals in child gang life? How are they realized?
5. In what ways do boys and girls differ at this stage? How do boys express their dislike for girls and vice versa?
6. Why are children's clubs and organizations necessary?
7. How are self-identity and self-appraisal modified by parents and by peers?
8. What are the factors promoting character development? How does parental behavior affect children in this regard?
9. What does a child need to get preparation for adolescent tasks of development?

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Children's Emotions (22 min) McGraw-Hill, 1950. Causes of common emotions and their handling are explained.

Children's Fantasies (21 min) McGraw-Hill, 1956. Developments, effects, and utilization of fantasies for creative living.

Children's Play (27 min) McGraw-Hill, 1956. Play activities are portrayed at various levels of development; the necessity of healthy play is illustrated.

Developmental Characteristics of Pre-adolescents (18 min) McGraw-Hill, 1954. Daily activities of a boy and a girl show various qualities and traits of pre-adolescents.

Discovering Individual Differences (25 min) McGraw-Hill, 1954. Presents the methods by which a 5th-grade teacher becomes acquainted with traits and features of the children in her class.

From Sociable Six to Noisy Nine (22 min) McGraw-Hill, 1954. Normal behavior changes, problems and their handling are explained.

From Ten to Twelve (26 min) McGraw-Hill, 1957. Characteristics of preadolescent level are illustrated and guidance needs indicated.

Frustrating Fours and Fascinating Fives (22 min) McGraw-Hill, 1953. A small boy's cheerful, zigzag course at 4 and 5 in a nursery school is portrayed.

Siblings Relations and Personality (22 min) McGraw-Hill, 1956. Relationships between brothers and sisters throughout childhood and adolescent phases and their effects on personality are presented by means of series of case studies.

Your Children and You (29 min) British Information Service, 1948. Techniques for developing children's habit patterns and their emotional control are shown.

SECTION

VI

PUBERTY

THUS FAR, the early levels of growth have been examined. Not many final properties and features, as they pertain to the adult appearance or personality organization, have evolved. Puberty is one of the key stages of life at which traits and characteristics are formed which will be enduring marks throughout the individual's adulthood. To begin with, the bodily growth leads to some lasting proportions and features of an adult. Sexual development results in additional persistent characteristics of maleness or womanliness. Only by drastic means may these rather permanent traits be transformed or removed. Self-concern and worries about one's personal adequacy and social status intensify as the individual undergoes these transforming changes leading toward adult qualities, abilities, and traits.

Puberal Developments

CONCEPTS OF PUBERTY AND ADOLESCENCE

Puberty and adolescence are usually interpreted as transitional stages between childhood and adulthood. Gradual but at times apparently sudden expiration of what is typically associated with the child's behavior, appearance, and personality occurs at this stage. In addition, the emergence of adult traits and features with the specific masculine or feminine characteristics takes place. Puberty is easily seen as a phase of physical growth and sexual maturation, while adolescence is more closely related to emotional, mental, and personality developments resulting in part from puberal changes and needs.

The concept of adolescence comes from the Latin verb *adolescere*, which means "to grow to maturity." The psychology of adolescence usually includes both puberal and adolescent phases of ontogenetic growth. The nature of the total adolescent span of life may be highlighted by such designations as a phase of storm and stress; an age of suffering and frustration; a time of many problems, surprises, and life-determining decisions; and a period of frequent conflict and difficulty in adjustment. Viewing it from a more positive aspect, adolescence can be seen as a stage of *search for oneself* marked by romances and love; by development of personality and character; by discovery of values, ideals, and full personal identity; and by attainment of adult status with its privileges, challenges, and responsibilities.

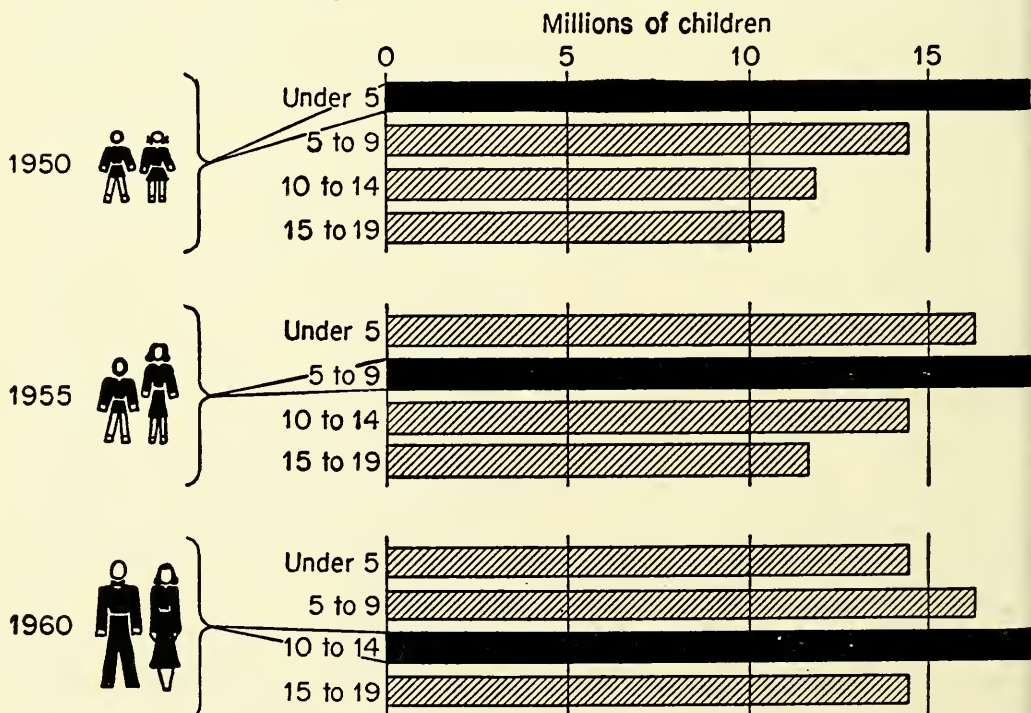
Usually an adolescent becomes deeply aware of many issues and questions concerning himself and others: what he has to do or omit doing; what others expect of him, especially peers and members of the other sex; how much he can engage himself in experimentation and adventures toward the new horizons of experience and of behavior; whether

his freedom includes the right to enjoy what life can offer or is a challenge toward responsibility and service to others and God. These and similar quests emerge from the depth of the adolescent's mind as his perceptions and interpretations of himself, of others, and of the world change.

The adolescent often oscillates between puerile narcissism and adult altruism. His behavior continues to be marked by instability and incoherence. He is at times confused in reference to his roles, tasks, and situational demands on him. Surprises and disappointments are frequent. Figuratively speaking, adolescent living is like a never-ending dream in the dark night where powerful flashes of light occur, yet are blinding rather than illuminating. For a long time the adolescent feels lost, before he begins to find himself at the verge of adulthood.

During the span of adolescence, the process of growing up frequently involves much strain and stress, concern and anxiety, and many ups and downs before the final and to a large degree integrated personality pattern is acquired. An adolescent may be frequently seen as a human bouquet of contradictions. It is not unusual that when the adolescent years are exhausted, many developmental tasks are left still unfinished and, as a result, are carried over into the years of early adulthood. In this sense, adolescence represents a training ground in which an exten-

Figure 14-1. Adolescent Population



(Fact Finding Committee. Midcentury White House Conference on Children and Youth. *A Graphic Presentation of Social and Economic Facts Important in the Lives of Children and Youth*. Washington, D.C.: National Publishing Co., 1951.)

sive reorganization of forces largely determining behavior in adulthood takes place. These adolescent experiences vary greatly in intensity among individuals and societies.

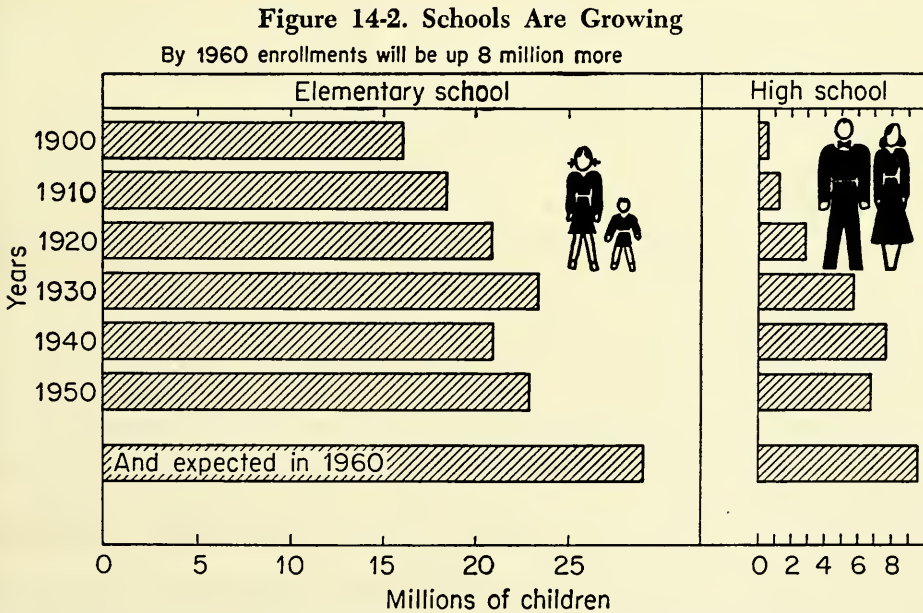
It appears that the individual experiments with most of his dispositions and resources, unfolding abilities and traits without much planning. As on a piano, he tries all the keys and spontaneously uses the whole keyboard, causing temporary disharmony, even noise. Nevertheless, as maturity advances, he begins to choose and combine the better tones and overtones into a symphony.

As a result of the record number of births in the years 1946-1950, the number of school children is now exceptionally large. Proper educational and recreational facilities for adolescents is the present challenge to the nation because their number is beginning to swell as Figures 14-1 and 14-2 indicate. To a significant degree, the future of the nation depends on them.

Two sections of this book are devoted to the crucial span of adolescent development and adjustment. This and the following chapter deal chiefly with puberal changes, while the next two concentrate on the occurrences of adolescence proper.

FACTORS PRECIPITATING PUBERAL CHANGES

Puberal, or early adolescent, growth consists primarily in rapid somatic maturation and assumption of adult-like bodily proportions, sexual de-



(Fact Finding Committee. Midcentury White House Conference on Children and Youth. *A Graphic Presentation of Social and Economic Facts Important in the Lives of Children and Youth*. Washington, D.C.: National Publishing Co., 1951.)

velopments resulting in functional capacity of the gonads, and the appearance of the so-called secondary sex characteristics which then clearly distinguish male and female in appearance. The onset of puberty in girls is frequently an abrupt phenomenon requiring emotional and social readjustments of an immediate nature. The onset is a less definite process in boys. Their need of readjustment therefore comes more gradually. The effects of such growth on the concept of self and personality are pervasive and cannot be overemphasized. The forthcoming chapter attempts to appraise and illustrate their importance to the adolescent.

Increased structural growth at the age of eleven or twelve depends directly on the change of biochemical controls, which is a result of a change in endocrine gland functioning. Several endocrine glands participate heavily in effecting puberal changes. In this relationship, the pituitary gland located at the base of the brain may be considered as a master gland because it produces hormones stimulating growth and activity of the other glands. The hormonal activity of the pituitary appears to depend largely on stimulation by the hypothalamus and hormones of some other glands [13]. The total cycle of puberal changes seems to require a balanced interaction among cerebral cortex, thalamus, pituitary, autonomic nervous system, thyroid, adrenal cortex, and gonads.

It may be recalled that the anterior lobe of the pituitary produces several hormones which directly or indirectly function as growth-regulating factors. Somatotrophin (STH), one of the pituitary's growth-promoting hormones, controls the size of the individual and, especially, the limbs. Hyposecretion of the anterior portion of the pituitary gland at the time of puberty may cause one to remain child-like in size, while hypersecretion may spur the growth to giant dimensions. Research in endocrinology has discovered the existence of a close relationship between the gonadotrophic secretion on the part of the pituitary and the sex glands. Other pituitary hormones stimulate the thyroid (TSH), adrenal cortex (ACTH), certain metabolic processes, and to a certain extent blood pressure.

The growing activity of the pituitary's anterior lobe in terms of somatotrophic hormone production introduces observable puberty changes. First, increased structural growth of the extremities of the body occurs. Arms and hands, legs and feet, and the nose grow quickly and assume practically adult proportions. At the same time, the heart enlarges out of proportion to the increase of the arteries and the trunk, with the result of an increased blood pressure. The disproportion of heart to arteries and the elevated blood pressure may cause the pubescent to experience moments of dizziness and general weakness. Increased secretion of the gonadotrophic hormone activates the growth and functional maturation

of the sex glands. When the gonads—testes in male and ovaries in female—reach their maturity, they begin to produce hormones of their own which in turn affect the pituitary's functions by slowing down its growth-producing effects, and stimulate the development of secondary sex characteristics. There is an approximate one-year period of transition from an immature to a mature sexual status. These changes in the reproductive system of the adolescent greatly influence many changes in the experience, attitudes, and behavior of the growing person.

Another factor influencing structural growth is the thyroid gland, located in front of the larynx within the throat region. Its secretion, thyroxine, consisting chiefly of iodine (65 per cent), exercises a decisive influence on the metabolic process—the nutrition energy exchange within the organism and related cellular activity—and, especially, on oxygen consumption. Severe underfunction without medical care may lead to a general retardation of physical and mental development, a condition known as myxedema. Excessive function increases the metabolic rate of the individual, raises the blood pressure, and makes the person excitable, especially when accompanied by a hypofunction of the parathyroids. The adrenals, attached to the kidneys, increase their functional activity as puberty advances, while the thymus gland, located in the chest anterior to the mediastinum and behind the sternum, grows smaller and atrophies at about the same time.

Ossification and muscle development have a considerable bearing on adolescent behavior because the physical strength largely depends on these two systems. At the age of eight years the weight of the muscles approximates 27 per cent of the gross body weight; at sixteen years it reaches 44 per cent. The greatest increase occurs with puberty changes. The strength usually doubles between the ages of twelve and sixteen. Frequently the muscle growth precedes the level of ossification. Such a condition is apt to contribute heavily to psychomotor incoordination and clumsiness. Intricate relationships between various enlarged muscle systems and neural extensions, stimulating their activity, add much to the puberal difficulties in muscular coordination. When the bone system develops in excess of the muscular system, discomforts, cramps, and aching are the usual results.

The endocrine and other biochemical and structural changes result in some lack of balance and proportion within the individual, and dispose the puberal child toward a loss of his previous symmetry and grace. This is especially true in social situations. Otherwise, the young adolescent gains in muscular coordination as his performances in athletics demonstrate. The repercussions of the loss of balance on the adolescent's inner self are manifold. Attention to structural changes increases his self-consciousness. The emergence of new impulses and desires, es-

pecially those related to sexual maturation, bring out some motivational and behavioral oscillation and even disorientation. Yet the adolescent begins to search for the meanings and implications of these changes and makes attempts at controlling and integrating them into his expanded self-system.

SEXUAL DEVELOPMENT

Excepting the primary sex characteristics, boys and girls throughout childhood are quite similar in their physical appearance. Sexual maturation at puberty makes boys look more masculine and girls start to look more feminine. The increasing difference in appearance is due to the growth of skeletal and muscular systems, and is especially related to the levels of growth of secondary sex characteristics. The development of the testes, distribution and pigmentation of pubic hair, and changes in voice are the significant attributes of boys. A male child's high-pitched voice drops approximately one octave. Breast formation from budding papilla to mature breast, appearance of pubic hair, broadening hips, and menstruation are the signs of a girl's progress in puberal growth.

When gonadal glands reach the point of structural maturity and functional readiness, the peak of puberal changes is attained. Setting aside wide individual differences, the average age for girls approximates 12.5 years and for boys 14.0 years of age. The norms depend on the criterion that is being used. A satisfactory but infrequently used criterion in determining the level of puberal development is the laboratory analysis of the amount of gonadotrophic hormone in the urine. Another criterion is provided by appraising X rays of bone structure. It has been determined that the puberal spurt of bodily growth and gonadal maturation tends to occur at a certain level of ossification. On the basis of CA (skeletal age), developmental norms have been formulated for both boys and girls [7]. To an expert observer, external appearance also tends to indicate the level of puberal maturation.

Owing to a pituitary hyperfunction during the years of childhood, puberal changes may occur several years earlier than indicated. In such exceptional cases, the sex glands attain mature structure and function, the secondary sex characteristics grow, and heterosexual interests appear much earlier. Various factors, such as glandular disturbances, long illness, or otherwise retarded development, may delay puberal changes for several years too.

Moderately precocious puberty changes usually are associated with some advantages. Because the precocious individuals look grown-up, they readily secure popularity and social prestige among their compeers. Very early puberty, however, makes the individual unfit for his peer

groups; yet because of his age, he also lacks acceptance in older groups. Delayed puberty implies a small body with less strength than one's faster-maturing peers. The boy or girl may be forced to withdraw from the groups with which he formerly was associated, and to compensate by association with younger age groups. This may be accompanied by feelings of inadequacy or an attitude of failure. With large groups as a frame of reference, it may be concluded that those who mature late are beset with more problems and troubles than those who mature early. Gifted and intellectually superior children undergo puberty changes earlier than the average group, and the average group supersedes the mentally dull and borderline groups.

When puberty changes appear comparatively early, structural growth is more gradual and regular than in most cases of late growth. In the latter, the growth may be turbulent and less integrated. Rapid acceleration in growth is often accompanied by restlessness, fatigue, and disturbances in motor coordination. It is noteworthy that puberal changes appear at a similar age in all races, nationalities, and cultures, but are mildly delayed in northern as compared to southern regions.

EMOTIONS AND ATTITUDES

The puberal spurt of growth is also marked by substantial gains in affective differentiation and attitude formation. A great increase of such emotional forms as moods and sentiments takes place. Increased sensitivity and depth expand the amplitude of emotional response. Stressful and joyful reactions to various events and situations are more frequent than before. While the older child is able to control his emotions to a considerable extent, the adolescent is largely guided by the vivid currents of his feelings and sentiments. When aroused, emotion frequently gets out of proportion to the initial stimulus. Attempts to control emotional expressions are frequent but are often not successful. *Ambivalent* feeling tones represent a rule rather than an exception in persons at this stage of development. The adolescent often feels ambivalence, i.e., enthusiasm and then despair over the same objects and events. Trivial changes elicit antagonistic tendencies without inhibiting the original feeling. Much emotional instability is exhibited in confronting family, school, and peer situations. Control or balance of affective experiences seems to be lost. The emotionally charged situations remind the observer of emotional negation and temper seen during the third year of life, in the dawn of early childhood.

Transference of affection and love from parents to peers and, especially, to members of the other sex represents a major change in emotional cathexis. This opens a new avenue for attitude formation. Many

disappointments and much emotional tension result from this key shift of feeling and thinking. New adjustments at any age are accompanied by heightened affective reactions. Development of new attitudes takes time, and consolidation in new gains is a gradual process. Lack of preparation for the adolescent role, parental objections, and financial needs are factors contributing to a state of emotional uneasiness. Such states in turn lead to a superficial release of energy which, when not behaviorally discharged, may accumulate and then interrupt functioning of some organismic systems. As a result, organismic balance and personal health may be affected negatively, especially if such states repeatedly arise. New self-defensive dynamisms are often needed to preserve some kind of balance. Daydreaming and hostility are among the self-defensive mechanisms often used by adolescents to protect themselves from the threats and contradictions of the external world.

Increased social awareness and a need for intimate peer companionship make an adolescent ready to conform to the expectations of his contemporaries. He takes pains to establish favorable relationships with various individuals and groups he comes in contact with. Full acceptance is highly desired. Contacts with members of the other sex, begun at this age of sexual maturation, start to be highly valued and seen as vital for the person's self-esteem. The typical lack of stability of emotion often results in a quick rejection of some earlier associates and a renewed search for "perfect" companionship. Strong likes and dislikes at this age form a basis for additional attitudes toward classes of persons and objects which earlier were neutral. These attitudes will affect personality and character formation in their final patterns, as will be seen in Chapter 17.

HEALTH

Late childhood may be characterized as a healthy age. This situation somehow is reversed when the child begins puberty changes. Very often the young adolescent feels ailing and suffers headaches, bodily discomforts, and stomach pains. He may have little energy for play or work, feel tired if not exhausted, or be afflicted with minor disturbances of a psychosomatic kind. Some individuals come to a generally run-down condition, and are frequently bothered by influenza and sore throats, e.g., tonsilitis. Infrequently, "feeling ill" serves as an escape from duties and responsibilities to which they object. Generally there is no evidence of any severe illnesses related especially to this phase, and very few die at this stage of life. However, there is a natural physiological explanation for some of the adolescent's lack of energy, his frequent colds and

aches. First, as mentioned earlier, the additional strain on the heart because of the slower growth of blood vessels can create a feeling of tiredness, and a person with it should not be pressed into robust activities. More often, though, the puberal child may feel inclined to expend a great amount of energy, even beyond his capacity. By overexpending himself, coupled with other careless actions, such as an inadequate intake of food, the adolescent often precipitates various forms of illness.

Some of the surface glands produce skin eruptions and acne of various types, which were rare in childhood but abundant during infancy and adolescence. Rapid growth and bizarre eating habits are major causes for this. Emotional turmoil and difficulties in social relationships also may be seen as frequent contributing causes.

DEVELOPMENTAL TASKS OF PUBERTY

It is difficult to single out and properly formulate tasks pertaining to the puberal phase of development since these fuse with the general developmental tasks of the adolescent. Following a reexamination of puberal developments, it is found that bodily control, maintenance of external interests and activity, peer identification, personality and self-reorganization, social sensitivity, and progress in controlling impulses, especially sexual urges and emotional moods, may be assumed to pertain specifically to this phase as necessary prerequisites for later adolescent maturation.

1. *Bodily control.* Pubescent developments lead to the loss of the child's grace, also to slump and physical discomforts. Regain of control over the body is then a continual task for the puberal individual. Much effort and bodily exercise is necessary to reach a refined control resulting in more mature gracefulness.

2. *External interests and activity.* The puberal child is greatly self-preoccupied; too often he may engage in brooding fantasy and active daydreaming. Withdrawal into oneself at puberty is a threat to the individual's learning and specialization. At this stage he needs to learn much by activity and participation, to experiment with his own endowments in order to utilize and assess them for his present and future needs.

3. *Peer identification.* At puberty the adolescent seems to be confronted with two sets of motives: the prepuberal individualistic motive in which his pleasure-securing drives are powerful, and the social motive in which he strives for approval and interpersonal intimacy. The desire to make the best impression on others, especially on compeers of both sexes, becomes intense. The individual is learning to adjust his ac-

tions so as to fit into a group pattern in order to submerge himself in it fully through self-identification. This developmental task is a major step in promoting the ability to identify oneself socially and emotionally with persons and groups other than parents and family. This ability is crucial for social adjustment during the later years of life. Finding human models for self-identification is a further step in the same direction.

4. *Self-reorganization.* It may be noted that a general breakup of child personality structure occurs at this phase of adolescence. Many reorientations, such as the changing relationship with parents and peers, awakened sexuality and a grown-up body, and new emotions, moods, fantasies, and interests lead to a reorganization of the total personality. In the course of this reorganization, the child's attitudes and interests are largely modified or transformed. Many attempts are usually made by the pubescent himself to prove he does not consider himself a child any longer. Objections to treatment like one are frequently raised if parents or teachers do not follow the significant steps of puberal personality formation.

5. *Social sensitivity.* As a puberal child becomes more interested in peers of both sexes and seeks their approval at any price, he learns much about outstanding qualities and characteristics of others. Accumulating knowledge of peer needs helps one to improve his sensitivity to the wants, preferences, and desires of peers. Concepts and hypotheses about social structure, conventions, and democratic procedures are also advanced and serve to fit him better into his society.

6. *Growth of self-control.* Self-control extends through vivid attempts to curb sexual impulses and certain emotions, especially those which disturb interpersonal relationships, such as anger, temper outbursts, and moods. While the child was largely controlled by forces from without, the pubescent makes efforts to free himself of such dominance so as to establish an internal authority upon which to rely, and by means of which to increase his self-direction in order to assert the individuality of his own personality. Growth of self-control is also related to attempts at developing skills in interpersonal communication, such as dancing and impressive conversation, and to gains in popularity and leadership.

Puberal development can be summed up by comparing this period of development to a budding flower that is beginning to unfold so that it may reach the fullness of its intrinsic nature. This period may also be compared to the words of Christ when He said, "Unless the grain of wheat fall into the ground and die, itself remains alone. But if it die, it brings forth much fruit." So also the pubescent must figuratively suffer the death of his childhood ways if he is not to remain alone but develop into an adjusted and useful adult.

QUESTIONS FOR REVIEW

1. Explain the concept of adolescence. Identify several interpretations of this phase of life.
2. What are some typical problems of an adolescent?
3. Indicate the role the pituitary plays in precipitating puberal growth.
4. Give some facts about the structural changes within the bone and neuromuscular system.
5. Relate some factors or conditions which produce early or late sexual maturation.
6. What criteria are used in estimating the level of puberal development?
7. What are the frequent health disturbances at puberty and early adolescence?
8. Identify several developmental tasks of puberty and explain one of them.

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Personality Reorganization

THE PREVIOUS chapter has pointed out the manifold developmental gains at the puberal stage. As one may expect, a major personality transformation also sets in when the individual enters the adolescent phases of growth and maturation. Stirred up and made possible through the structural maturation within the glandular and neuromuscular systems, the personality reorganization unfolds itself simultaneously in many of its dimensions and facets.

CHANGING SELF-AWARENESS

When an adult or older child puts on a new suit of clothes or merely a new hat, it tends to increase his self-observation, and his feelings of self-adequacy or inadequacy may become more noticeable at these times. Growth of any part or aspect of the organism is likely to promote heightened self-awareness and stir up attitudes related to one's self-evaluation. It is therefore easy to understand that puberal transformations within various bodily systems will affect the pattern of the total personality and the concept of self. Growing bodily structures and changes in proportions, all approaching the adult's physique, stimulate change of attitudes toward one's self and others. New vistas of experience and behavior appear. Feelings of self-might and self-worth may be magnified if growth is consistent with one's model, which is formulated in one's mind through observation of others in an advanced pattern of growth. Feelings of inadequacy and inferiority may emerge or be strengthened if one notices morphological differences and interprets them as deviations or deficiencies from the standard. At this transitional age, one is very much concerned about his appearance because he is now more self-conscious than before and capable of expanded self-evaluation. He comes to realize, for example, that his appearance

is, to a large degree, a final appearance not only for this stage of adolescence but also for adulthood as well. The notions of a "glamour girl" or of a "muscle man" are often present but impossible to realize fully. Many puberal children have some difficulties in accepting themselves as they are, especially if others do not seem to completely accept them as they are. Oftentimes others point out an undesirable trait or a behavioral peculiarity. Any critical remark on the part of companions may act as a factor in changing adolescent attitudes toward self and self-acceptance.

Self-awareness may select a point of reference in the general observation of behavior patterns. It may be directed toward specific functions and drives which, to a degree at least, are different for boys and for girls. Thus, various concerns of the boy may be specific to the male adolescent population and usually not be problems of the girl, who will have concerns of her own. Awkwardness, due primarily to fast growth of extremities and muscles, is an early source of adolescent concern. At this time the male adolescent does not seem to be fit for athletics, dancing, or any other activity which involves fine muscle control. At a later point, speech will be affected too. The lack of control over one's voice and the changes in tone quality may result in some embarrassment and lead to pubescent reticence, in certain social situations at least, until this control is regained. Additional discomfort and tension periods occur as maturation of sexual functions take place. A boy may be disturbed and sometimes frightened by a nocturnal emission.

Producing pleasurable experience and some relief of sexual tension by means of masturbation readily calls forth concern, guilt, and occasionally feelings of depression in most normal adolescents. Excessive fear, shame, and remorse may result when frenzied attempts to inhibit the act are unsuccessful. However, if only minor attempts are made to gain control over sexual fantasies and activities, the situation becomes unhealthy and tends toward a perversion of the sexual drive. Hence, if a pubescent masturbates freely and frequently without any experience of shame or guilt, his chances to develop normally and to remain a healthy personality are seriously threatened. Feelings of shame and remorse are the needed forces for a growth of inner control which will help in redirecting some of his sexual energies toward sublimated activities with more creative goals. Deep moral experiences and convictions on the part of adolescents will now, or at a later point, produce control and lead to a balance within the total motivational structure of the post-puberal personality.

Attitudes and emotions elicited by sexual functions unwillingly focus the pubescent's attention and his curiosity on sexual matters. Like every new experience and ability, the sexual function is interesting and the

drive compelling. The boy becomes concerned about the significance and implications of sexual changes. He may seek to know if his friends have the same experiences. His interest and curiosity is also directed toward members of the opposite sex. Possibly for the first time in his life, they appear as fascinating and exciting individuals, deserving attention and close association. His eagerness to associate with them may appear almost spontaneously, but more often it develops gradually. Depending largely on the early notions about the cross-parent and other members of the opposite sex, ambivalent feelings and mistrust may persist for several years and longer.

When a young girl realizes the curves of her breasts are showing through her dress, she may become embarrassed and try to regain a flat chest by wearing tight brassieres. Soon, however, the feminine model, as pictured in fashion and other magazines, begins to appeal to her. Then she will be ready to do everything in her power to fit the standard and measurements of womanliness. Lack of good appearance and excessive height are problems of significance to a number of girls. The menarche and forthcoming menstruation may produce worry and fear, especially if the girl has not been informed about it in advance. The menstrual cycle during early adolescence is sometimes irregular. Despite the fact that menstruation is a sign of a normal and healthy condition, it may be accompanied by headache, cramps, lassitude, and a feeling of being ill. Increased irritability and depression are frequently other symptoms of this condition. The attitude toward menstruation, often acquired from the mother or some other informant, has much to do with the presence of these or other psychosomatic disturbances. Masturbation as a means of securing pleasure may complicate the general picture of girls' adjustment at this stage of life. Since girls mature sexually at an earlier age than boys, their change of mind toward boys, which encompasses the attitude that boys usually be older than themselves, interesting and worthy of attention, also occurs about two years earlier.

The motivational reorganization following puberal changes is marked by a heightened tendency to show off one's new abilities and to feel great pride in achievements appreciated by members of the other sex. Emotional sensitivity and strivings for emancipation from home bounds are the usual prerequisites for growing into adult stature. The anticipation of adult privileges, a more positive attitude toward others, and efforts at self-improvement are all closely linked with a readiness for and partial transition into adolescence proper.

OUTGROWING CHILDLIKE MOTIVATION

The ever increasing desire to show off one's aptitude and skills to others drives the adolescent toward manifold attempts at attaining excel-

lence in individual and group contests. Competitive sports, tasks requiring physical strength, popularity, and scholastic honors are some of the more frequent fields of adolescent self-assertion. Any type of achievement, if acknowledged by others, raises one's feelings of self-importance and adequacy. Any failure may be deeply discouraging and motivate withdrawal from the activity. Resulting conflict and frustration may also elicit depression, self-blame, or anger and aggressiveness toward others. Nevertheless, the level of aspiration is frequently elevated at a faster rate than can be substantiated by any objective norms of accomplishment. Perfectionistic strivings are not infrequent during adolescence. These are often marked by frequent attempts at self-improvement and an elevation of status within peer groups and community.

Emancipation from home bonds chiefly refers to the gain of emotional independence from the parents. The emotions of tenderness and affection shared with parents during childhood are now readily directed toward individuals of the same age. The adolescent becomes emotionally and socially distant from his parents. He makes many attempts to gain and hold the affection, confidence, and esteem of his age mates and finds security in peer-group identification. The deep-seated adolescent need for exchange of personal experiences, thoughts, and desires is best satisfied by his compeers in both individual and group situations. Parental demands for rapport and dependence of the adolescent on them are occasionally met with resistance or resentment, even open defiance. Parental demands and home restrictions are often seen as barriers to outside associations and group activities. Adult privileges are expected and demanded with considerable vigor. Unlike the child, the adolescent will not readily compromise. A significant number of adolescents, especially those who mature early or late, may become even more dependent on their parents. One reason is that they are less accepted by their peers.

Emotional sensitivity increases as the puberal years pass. The individual begins to respond emotionally to trivial causes and readily grows emotionally self-involved. Any difficulty or disappointment is frequently accompanied by increased tension and emotionally toned behavior.

When sexual maturation is completed in its major aspects and emotional differentiation advances, boys and girls begin to assume gradually a more positive attitude toward parents and other adults. This is accompanied by a constant but gradual improvement in their social manners and behavior. Considering or respecting the other side becomes more frequent. Altruistic sentiments begin to be directed toward many individuals and groups.

The adolescent often observes his lack of emotional and behavioral control. His fearfulness in social situations is often exaggerated. His own inconsistencies in feeling and behavior continue to complicate many

interpersonal situations. As a result, he studies ways to appear more grown-up than he is. Occasionally he may formulate resolutions and outline practical steps to be followed. Such efforts toward self-improvement by means of self-control and improved performance are frequent in late adolescence and, at times, may point to standards approaching perfectionism. A façade of maturity is often established long before the adolescent reaches adult stature.

PUBESCENT FANTASIES

Puberty is a phase of the final spurt of perceptive and imaginative developments. The adolescent begins to perceive minute aspects and relationships of various objects. He enjoys vicarious experiences by means of which he can go to various places, known and strange, and do things without being clearly self-involved. Frequently, when the puberal child is exposed to a frustration or disappointment, he tends to compensate by recourse to fantasy. There he has resources and abilities to cope successfully with any situations and events mentally produced. Thus, by means of daydreaming, the pubescent transcends the limits of his own powers, and of time and space barriers, and ventures into experiences that otherwise are not attainable by him. It is often a means of escaping, discharging existing tension, anxiety, or depression. A major theme of puberal reverie is a "suffering hero." In this form of imaginary excursion the adolescent pictures himself suffering various trials and tribulations, eventually being vindicated and, in a way, successful. The "conquering hero" represents another frequent theme of imagination which partially compensates the adolescent's mishaps. Boys may daydream about performing an adult role, vocational success, possessions, saving a friend, sexual entanglements, homage and grandeur, and a variety of adventures. Girls may daydream about their attractiveness, romances, singing, solo dancing, and receiving a prince and his gifts.

An experimental study by P. M. Symonds [8, pp. 218-225] based on responses to pictures by forty subjects from twelve to eighteen years of age, reveals that the themes of *aggression*, e.g., violence, frenzied excitement, and those of *love*, e.g., episodes of dating, companionate rides, marrying, are practically universal for adolescents. Other frequent themes of adolescent imagination include anxiety, guilt, depression, success, independence, happiness, conflict of good with bad, Oedipus longing and conflict, and dread of sickness and injury. Apparently the aggressive trends growing out of frustrations at this age are goaded on by the adolescent's need to assert his independence and to achieve maturity. The adolescent is also driven by his love needs, his need for belonging and security, his need to be accepted by others, and his need to find in

other persons those qualities to admire which will make up for the privations and inadequacies which he senses in himself.

In daydreaming, the retreat of the critical self seems to be obvious. This gives a free rein to the operation of underlying needs, drives, attitudes, and emotions. The creation of gratifying and joyful events, though imaginary, may serve as a useful catharsis. It may also serve as an escape or a retreat from the threatening confines of the present situation. Yet the obligation to stay in the grip of reality cannot be abandoned by frequent flights into the world of fancy. As the years of adolescence progress, the vicarious experiences of daydreaming become more related to the individual's reality and fuse with his possible decisions and activities. Vivid imaginary anticipation of the events to come may serve the individual in avoiding many trials and errors.

MENTAL MATURATION

During puberty, the normal person undergoes a final spurt of intellectual development. There is a great increase in his ability to apprehend relationships, discern factors, abstract what is essential, and use abstract terms and symbols. The ability to learn and to solve various problems approaches its maximal breadth and depth. This is a reason why toward the end of puberty the adolescent attains practically the same scores on intelligence tests as an adult.

Internally the young adolescent may feel, "Now I know everything." His intellect may work feverishly. A vivid preoccupation with thinking, experimenting, and generalizing at thirteen or fourteen years of age leads to the acquisition of a theoretical and very critical attitude. His curiosity about some existential or sexual problems may be accompanied by an investigation of many sources until he finds satisfactory solutions to the problems he is trying to solve. Puberty is marked by the beginnings of self-answering rather than reliance on parental judgments, dependence upon which was so typical of the years of childhood.

Increased ability to abstract and generalize is evident in self-expression which now relies heavily on a conceptual rather than concrete perceptual kind of analysis. Less tangible relationships and roles are recognized. Various branches of science and philosophy begin to make sense to him. He can direct his attention and understanding to the scientific exposition of astronomy, cosmology, ethics, aesthetics, logic, and metaphysics.

At the fourteen- to fifteen-year level, the adolescent fully acquires formal thought and propositional logic. Now he handles most of the formal operations successfully, including implication and exclusion, and is able to set up experimental proofs for verifying his findings. While deduction of hypotheses appears to be easy at this level of development,

success in experimental induction, based on the variation of a single factor with the others held constant or equal, is difficult at this level of intellectual efficiency [5, pp. 334 ff.]. This transformation of thinking contributes substantially to an over-all orientation and to a further personality growth.

RELIGIOUS REEVALUATION

Pubescence is a developmental level at which the individual reevaluates his religious system of values and ideals. Childhood concepts, beliefs, and practices are minutely examined in the light of abstract and propositional thinking. In many cases, doubts pertaining to some major tenets or minor implications arise. This is especially true for individuals whose previous religious instruction was incomplete or lacked careful planning. Many adolescents do not have access to religious instruction commensurate with their level of understanding and feeling. The need for additional higher-level religious instruction is a definite necessity at early adolescence.

The influence of the peer group at this time is great. If the individual associates with persons of little or no religious training or beliefs, his own beliefs may be shaken. Parents, too, have a part to play during this period. By explaining the doctrines they hold on an adult level, they may help the adolescent to realize the role religion plays in adult life, enriching it and giving it meaning. School and church have to add their shares in teaching religion for adolescent and adult needs.

In the Catholic faith, confirmation represents a new step of readiness for adult obligations of professing and defending, if necessary, the faith. If the act of confirmation is preceded by a reinterpretation of some fundamental religious truths on this elevated level of understanding, it will tend to leave a deep impression on the adolescent's religious apprehension and perspective.

BEHAVIORAL CHANGES AND ADJUSTMENT

Motivational reorganization and growth in self-resourcefulness are two major internal factors conditioning changes in behavior and subsequent adjustment. Considering the fact of multiple growth of abilities and skills during adolescence, one would but expect some improvements in the level of adolescent adjustment. What actually happens is usually contrary to this. Most adolescents are now less well adjusted than they were during the late phase of childhood. Even adolescents who seem fully to apply their newly attained activities and skills usually meet barriers and obstacles in their path and suffer from discouragement and frustra-

tion. The contending forces within them readily arise and lead to difficult and disappointing decisions. Either much active venture and enterprise or much withdrawal and passivity are liable to result in personal difficulties. During this transitional phase of life, some suffering and morbidity cannot be escaped. Many adolescents, however, are striving to "have a good time" most of the time. When this idea becomes closely associated with the presence of members of the other sex, difficulties are almost inevitable.

The increasing complexity of the social organization due to recent advances in technology and occupational specialization is one of the factors introducing new difficulties into adolescent adjustment. This is one of the reasons why adolescence, as a time of preparation for adult tasks and obligation, is a relatively long period in American culture.

The self. The structure and boundaries of the self expand as the individual consolidates the pervasive growth of his organism and mental abilities. The puberal zeal in advancing a trait or skill entails something new for his self-reservoir. His attempts to focus more deeply upon his own experiences, thoughts, and activities in order to perceive new meanings and self-implications for future engagements contribute greatly to the final structure of the self. His puberal introspectiveness is later externalized and applied to the impact of the surroundings of his cultural and technological environment. Through TV, radio, and magazines and other pictorial publications, he visualizes the world and comes to view it with the bewilderment or enthusiasm they elicit. Awareness of the inner promptings and of external barriers is keen throughout the adolescent stage. His magnified inner and outer observation creates a new perspective. Although inadequate from several points of view, nevertheless it is an amplified source for his self-reference. As a result, many self-initiated activities are produced. When these activities encompass establishment of new interpersonal relationships, social weaning takes place. For this reason, boarding schools, summer camps, and travel offer valuable means for increasing self-reliance which, in turn, is needed for the enhancement of social confidence.

ILLUSTRATIVE CASE SUMMARIES

Three case summaries from Lawrence K. Frank *et al.* [1, pp. 214-215, 247-248, 284-285] have been selected to point out the prepuberal, puberal, and postpuberal levels of personality functioning as revealed by means of projective testing.*

* The projective tests used are referred to by the following abbreviations: Rorschach test—R; Thematic Apperception Test—TAT; Drawings of the Human Figure—FD; Horn-Hellersberg Test—HH; and Graphology—G.

PREPUBERAL: CONSTANCE

On the surface, Constance appears rather well adjusted without serious difficulties (R, TAT, HH, FD). However, this is probably due to conformity to the demands made on her, and for it she pays the price of overregulation, constant restraint, and politeness (FD). She plays the role of the happy child her parents seem to expect of her (R), but it is accompanied by resentment, restlessness, and dissatisfaction (FD) and a desire for expansion (HH). Temper outbursts are possible, and she feels guilty about her aggression (FD).

Constance is ambitious and has high aspirations (R, FD, G), but this seems to be at least partially a result of environmental pressure toward accomplishment (HH). While she has good intellectual capacity (R), her fantasy is rather infantile (TAT, HH). She is not able to achieve on a level with her ambitions, which results in tensions and anxiety (R, HH, but no indication of anxiety on TAT) and loss of spontaneity (R, FD). The limited imaginative range (TAT) may also be an expression of this. She forces herself to do things that are more impressive and attractive than she can do in a natural way (HH). At times she is rather evasive (FD, R). Actually, Constance is quite childish and dependent (R, FD). There are strong attachments to a protecting home environment (R, FD), feelings of insecurity (HH, FD), and marked ambivalence about growing up (G, FD). She is frightened, lacking in confidence, and self-conscious (FD). Her fear of aloneness and her need for parental love are too strong (G) for her to loosen the parental bonds. There is much egocentricity (G) and emotional immaturity (TAT). While she has a good capacity for outside stimulation and is socially oriented (R, FD, HH), she is too uncertain (FD) to be able to form social relations on a mature level (HH). Her social needs seem to be primarily for admiration and approval (R, FD), and she is quite exhibitionistic (R, FD). The motive of even her forced intellectualization is to please and to obtain social prestige (G).

Although her identification is basically feminine (R, HH, FD), there seems to be some wavering in regard to the sexual role and possibly some masculine protest tendencies (R, FD). There is strong yearning for acceptance by her father (FD), and her desire to satisfy him by acting like a boy may help to explain the masculine protest elements (FD). He seems to symbolize a mighty power in comparison with whom she feels small (HH).

PUBERAL: BARBARA

Barbara is a bright girl (FD, G, R) from a relatively sheltered home (FD). She is quite self-absorbed (G, FD), engaged in an attempt to understand herself (HH). Still quite dependent (FD), she seeks security (HH) and self-assurance (G). She has a strong interest in furtive means of pleasing (G). She appears shy (R, G), passive and subdued, without real aggression. However, the TAT indicated lively affect, possible aggression, and tomboyishness; the FD found indications of aggression; and the HH found that she was receptive to her inner urges but did not know how to relate them to social demands and rules.

Barbara feels that the environment is aggressive, and she is suspicious (G), fearful, distrustful, and cautious (R) in her dealings with it. She has become quite skillful in avoiding conflict (G). She becomes evasive and withdraws (R), avoiding issues, arguments, and definite attitudes (G). In short, she avoids friction by avoiding depth (G). This type of defense may partially explain the apparent passivity found in the Rorschach, without excluding the more intense emotional life, perhaps existing on a deeper level and fairly well controlled, that was found on the TAT. Although she shows a capacity for affection (TAT), she is not demonstrative (R). She is unwilling to form deep attachments (G) or experience strong emotions (R) which might be threatening to her. Similarly, her sensitivity (R, TAT, HH) is also used for the purpose of self-protection (G, HH). She has a capacity for much more outgoing behavior (R), but she spends enormous effort in keeping unconscious content under rational control (HH). She tends to escape into day-dreams (R) to relieve the tension (R, FD, HH); at times, however, she may be very outspoken and tactless (G). The FD found indications of ambition, while the TAT found only the barest suggestion of desire for worldly achievement. The apparent discrepancy here may be related to family demands for success. At any rate, concentration on school work is not easy for her because of her own inner problems.

Barbara seems to be rather discouraged (FD, TAT), feels inadequate and awkward (FD). There is a fair amount of anxiety present (FD, R, G, HH), and she seems somewhat sad (FD) and depressed at times (TAT). There is a good deal of ambivalence about growing up (FD). Her childhood is a little too comfortable for her to leave readily (FD, R), and she is frightened by adulthood and confused about her future goals (FD).

Barbara's home appears to be adult dominated (FD), with possible friction between the parents (TAT). The mother is probably dominant, and Barbara identifies with her (FD, TAT). There is also rivalry with a sister (FD). She appears to be superficial, perhaps as a result of attempts to contain her vitality (TAT).

Questions of physical maturity are most acute (HH), and there is some sexual wavering (FD, G) and conflict (HH). The TAT gives evidence of more than usual sexual maturity, connected with real feeling, while the Rorschach indicates that she seems to be waiting and does not yet show much warmth. On the whole, the picture is one of control; her curiosity (HH) and heightened sexual feelings are restrained (FD), and she tends to withdraw from sexual situations (FD). She would like to postpone the solution of the sexual problem (HH). There is also sexual shame (R) and guilt over masturbation. She is definitely feminine (G), and there is no evidence of rejection of her sexual role (R), but she readily entertains thoughts of being like a boy (FD). Apparently she envisages the boy's role as more acceptable to her father, more compatible with her ambition, and connected with fewer restraints (FD). Her overmodesty is apparently a reaction formation related to her strong display needs (FD, R, G), and she also seems to be afraid of rejection (R).

All in all, the picture seems to be that of a girl whose problems are typical

for her age period and economic group (R, FD, TAT) and who is handling them reasonably well now (R, G). Her capacities will enable her to grow into an adult without too much difficulty (G) although the transition into adulthood will probably be somewhat prolonged (R, FD).

ADOLESCENT: JEAN

Jean seems to have had a happy childhood (HH) and a protective home environment (R, TAT). Her family relationships have been secure, and she considers the world a kind and friendly place (TAT). But in a typical adolescent manner she is vacillating between dependence on her family (TAT, G) and being irritable and critical of them (G), struggling for independence in a somewhat defensive manner (G).

Her sound family life (FD) seems to have provided the basis for her emotionality (FD, G, TAT), her capacity for wholehearted participation (HH), and her underlying optimism (TAT). However, her independence has been delayed (R) so that she remains emotionally tied to family tradition (G). Independence appears painful (R) and threatening to her (FD, R, TAT), and a good deal of uncertainty results (FD). She is anxious about the future (HH) and seems in conflict about marriage and a career (FD).

At the present time, she is restless (FD) and unstable (R) with fairly frequent mood swings (FD). She is rather excited and agitated and tends to overreact (R). Her anxiety and tension result in some restraint (R), and her fear of rebuff (FD) results in emotional caution (R, G). Since her control is so precarious (R), occasional temper outbursts can be expected (R, FD).

Jean also has feelings of self-consciousness (HH), inadequacy (R), insecurity (R, FD), and fear (R, G). These seem to intensify her needs for dependency (FD) and affection (TAT). She seems intensely afraid of loss of love, and from this is derived her tendency to introject those whom she loves (G).

At this point, Jean feels that there is a good deal of aggression directed against her, and, although basically unaggressive, she responds with defensive aggression.

Her present introversive swing (FD), with its narcissistic dreaminess (G), its probing and self-absorption (FD), is undoubtedly a reaction to an escape from her inner and outer problems, for she has both the capacity (R) and the need for social participation (FD), and her approach is essentially an emotional one (TAT).

Jean is well endowed (HH), and has a highly original (HH, FD) and integrative (HH) intelligence, but she is not fully employing these resources (HH). She lacks confidence in her achievements (FD), and tends to be oversensitive to criticism (FD). She is not an "intellectual" (TAT); at this point she would like to substitute sensual and affectional life for intellectual achievements (FD). It is perhaps for these reasons that she projects her ambitions on to her future husband (FD, G) while wanting protection for

herself (G). In contemplation, Jean is driven to extremes of relaxation (FD); there are moody retreats into romanticism and sentimentality (FD). (On the TAT, however, girlish romanticism was conspicuously absent.) There is no real depression (FD), but Jean's fantasy life seems to absorb her more productive energies (R).

Jean is quite conscious of her body (FD) and probably somewhat unhappy about her figure (FD). Her tendency toward body exhibitionism is repressed (FD). She feels inadequate and insecure in the sexual area (R), and she is conflicted and disturbed about her sexual future (FD). Her strong sensuous desires are inhibited (G). While there seems to have been feminine awakening (HH), it has not yet found its own personal expression (HH) and her affection is not yet clearly channelized in a mature heterosexual direction (FD, TAT). Jean is interested in bringing up a family, the maternal side of femininity (HH, FD), perhaps because of her close affiliation (TAT) and identification with her mother (G). She seems to have a strong but ambivalent attachment to her father (G) and to see him chiefly in the role of a protector (R). It is interesting that that is also the role which she projects for her future husband (G). Her relationship to her brother may also be fraught with ambivalence, since the TAT gave evidence of unusual affection for him, while the FD found suggestions of rivalry.

Jean is basically sound (FD, HH) and well equipped (R). Her disturbances and conflicts are typical of adolescence (FD), and her adjustment is good (TAT) within its limitations (G).

Additional case studies and detailed analysis of the afore-mentioned cases may be found in the Frank monograph [1]. In some ways similar information about adolescent boys may be secured in U. H. Fleege's book [4]. Fleege used questionnaires to obtain material pertaining to adolescents beset by many problems, conflicts, and maladjustments.

QUESTIONS FOR REVIEW

1. What are some outstanding causes of increased self-awareness in young adolescents?
2. Select one of the frequent problems in adolescent life and indicate its implications for personality.
3. Why does a child's motivation have to be revised at adolescence? Why is a mere modification of it seen as unsatisfactory?
4. Present some themes of puberal daydreaming. Make an attempt to explain why such themes are frequent.
5. Characterize the nature of intellectual development during adolescence.
6. What does a pubescent need to further his religious development? What factors are promoting a deeper religious interest at pubescent level of life?
7. Explain how motivation and changes in ability affect the self and personal adjustment.
8. What makes case history accounts useful material in studying adolescent personality?

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Age of Turmoil (20 min) McGraw-Hill, 1953. Puberal developments and emotional problems of adolescents, illustrated by 6 types of personality.

Parents Are People (15 min) Audio Productions, 1955. Portrayal of parental authority versus adolescent needs of independence and resulting conflicts.

Physical Aspects of Puberty (19 min.) Crawley Films, 1953. Physiological developments of puberty, including concomitant mental and emotional changes.

Social Acceptability (20 min) Crawley Films, 1957. Relates social acceptance to the successful adjustment of the average adolescent and explains adult guidance.

Your Body During Adolescence (10 min) McGraw-Hill, 1955. Puberal changes toward manhood and womanhood, emphasizing implications of sexual maturation.

SECTION

VII

ADOLESCENCE

THIS is a period of life in which psychological and social self-realization for the adult level of life takes place. On one hand, personal abilities appear and can be appraised adequately; on the other hand, liabilities and deficiencies begin to stand out as organizers of problem behavior. Adolescence is a critical age at which many life-determining decisions are made. School performance, with its likes and dislikes as well as successes and failures, is one of the indicators of the direction of trait formation and later occupational interest and training choice. An indication of the sort of adult an adolescent will become is found in the narrowing of the total number of interests and the intensification of a few which will be dominant in his life pattern. Much growth, but also much ambivalence, turmoil, and oscillation, as well as trial and error, take place before the adult pattern assumes its final form. Progress in personality and character development is a major index of adolescent maturation and adjustment.

The Dynamics of Adolescent Behavior

THE PATTERN of adolescent motivation emerges out of puberal developments and experiences which, in turn, were preconditioned by individual endowments, resources, and childhood experiences. Sexual, emotional, intellectual, social, and moral developments in each individual stand out as sources of dynamic trends and behavioral tendencies. Specific adolescent interests, attitudes, and problems spring from them.

In the early part of adolescence, even a strong enthusiasm and a heightened interest for something may wane quickly and be replaced by other interests, sometimes antagonistic, sometimes peculiar, but always absorbing for some time at least. In the latter phase of adolescence, there are many attractions, interests, and preferred activities, some of which consolidate through practice and gain in depth and stability. Moreover, at this age they are more closely related to the individual's endowments and gifts, his status and environmental opportunities. Less oscillation and more consistency is shown as the years of adolescence pass.

STRATIFICATION OF ADOLESCENT NEEDS

As a result of puberal changes, the pattern of needs and need derivatives is transformed. On first sight, adolescent needs appear to be the same needs as those of the adult. A closer observation, however, points to marked differences peculiar to this stage of life. Motivational development in terms of needs involves many shifts of emphasis throughout infancy, childhood, and adolescence. The early phase of adolescence

may be seen readily as a climax of such changes. Gradual stabilization of the adult pattern takes place during late adolescence and early adulthood.

Fundamentally, human needs are generated by the intrinsic components of human nature. During the adolescent phase of life, the various dimensions of human nature are substantially advanced in their development. Therefore, adolescent needs, interests, and desires are as complex as they ever will be. Gratification of somatogenic needs, exemplified by the specific needs of energy such as oxygen, food, and fluids, is necessary for the maintenance of organismic functioning. Besides these primary requisites for physical survival, there are the locomotive and sensory drives which affect behavior and elicit new traits. The human drives activated by needs make up forces which cause the individual to draw toward or away from something. Kurt Lewin [10], describing this attractive or repulsive direction of drives, uses the term *valence* to denote qualities of an object by virtue of which the object enhances the power of the drives.

The psychological dimension of human existence generates the need for affection, security, independence, and psychological integrity. Sociogenic needs include group acceptance, identification and group status, participation and recognition. The need for participation in cultural performances and the needs of a nousogenic and spiritual character may crown the total structure of human needs. Evidence of a hierarchy of needs may be observed in the later part of adolescence as a system of derived needs and compensations is established.

During the process of advanced development, various abilities and skills are developed which enable the adolescent to seek successfully a gratification of fundamental and derived needs. The particular societal structure and culture in which each adolescent finds himself provide the media to satisfy the intricacies of the individual adolescent's needs; yet a poorly endowed or a handicapped adolescent may find it almost impossible, in spite of effort, to maintain a satisfactory gratification of his needs.

It is good to keep in mind that the adolescent is not always specifically aware of his individual needs nor of the particular valences which are necessary for the gratification of these needs. For example, a careful medical examination may reveal the need of certain vitamins or hormones. Or again, a thorough psychological examination may indicate a lack of affectionate relationship which may be the underlying reason for excessive eating and the resulting obesity.

Certain psychological and social needs greatly affect the adolescent and have far-reaching effects on his behavior and personality. A brief analysis of some of these needs will shed light on the adolescent life

pattern, and may possibly make some of these adolescent drives, interests, and desires less obscure.

The *need for security* stands out in its motivational power. During adolescence, security is deeply rooted in the person's estimate of himself—of his power and worth, his emotional balance, his social status, and his moral integrity [4, p. 166]. Security is largely founded on an attitude of self-confidence and self-control which, in turn, are promoted by the satisfaction of one's emotional needs. Social acceptance is a major factor in gratifying emotional needs. The adolescent feels secure when, in his quests or engagements, he is emotionally supported by his parents and some of his peers. The majority of adolescents lack adequate self-confidence when they cannot rely on their past experiences or when past experiences were adverse to them. Consequently, their expectancies are clouded with anticipation of danger and threat. They often experience ambivalence toward their own views and judgments. It is often difficult for the adolescent to make decisions because many times he wavers between antagonistic desires, between the need of support and independence, between selfishness and altruism, between conformity and a desire to differ from others. Such experiences promote feelings of inadequacy which, in turn, elicit feelings of insecurity.

The *need for novel experiences* may be seen as another motivational force driving the adolescent toward activity and self-involvement. Anything not as yet experienced attracts the youth. His curiosity to explore and to live his life fully is practically insatiable. The adolescent is eager to join various groups, to plan and make trips; his suggestibility about new activities and adventures is great indeed, especially if past similar activities were at least partially gratifying. Everyday experiences may often appear monotonous, and the desire to escape into something sensational may emerge.

The *need for status* is related to family, peers, and community. The adolescent has a deep desire to be accepted by his parents as he is, to be appreciated in his individuality, and to be dealt with on an equal basis. The intrinsic desire to belong and to share experiences with his peers is fundamental for the establishment of a status within his as yet limited community. Some adolescents do everything in their power to attract compeers or to attain an intimate level of association with members of both the same and the opposite sex. Moreover, the adolescent wants adult rights and privileges. Desires related to status appear to influence him in school and other institutions he comes in contact with. Many adolescents make some efforts to extend their control over community affairs in terms of their own needs and schemes.

The *need for physical and personal adequacy* is one of the most demanding needs during adolescence. Its gratification depends much upon

one's appraisal by others, especially peers. If a young person feels fully accepted by his reference groups, this need subsides; if not, self-defenses become intensified and make practical adjustment difficult. With a lack of social acceptance, tensions and conflicts are bound to arise which, in turn, elicit strong anxieties and feelings of inferiority. Manifold efforts to gain acceptance are usually made before despair and withdrawal become prevalent. In this way, leanings toward hostility and destruction are established, and violent assaults against others or oneself are made possible.

DEVELOPMENTAL TASKS OF ADOLESCENCE

The powerful desire to grow and to mature in order to secure acceptance into adult society and culture is marked during the latter part of adolescence. A recognition of developmental tasks may play a considerable part in this process. However vague these tasks may be for many adolescents, they are gradually clarified for most individuals. Before the period of adolescence expires, developments and drives occur which move the adolescent toward a mastery of some of his developmental tasks regardless of whether he is clearly aware of his tasks and plans the means to accomplish them or is not conscious of them at all.

Generally, several developmental tasks may be distinguished which pertain to the middle and late phases of adolescence:

1. Accepting one's physique and its various attributes as something final and self-related.
2. Attaining emotional independence from parents and parental figures.
3. Developing skills in interpersonal communication and learning to get along with compeers of both sexes and other people as well, individually and in groups.
4. Finding human models for emotional and self-identification.
5. Accepting oneself and relying on one's own abilities and resources.
6. Developing self-direction from within based on a scale of values, principles, and *Weltanschauung*.
7. Outgrowing infantile, puerile, and pubescent modes of reaction and adjustment.

Much exploration and learning are necessary to move oneself ahead toward realization of these developmental tasks pertaining to this major phase of intensified living. The key sign of a person's adequacy is his progress in acquiring an adult pattern of motivation.

CLASSIFICATION OF INTERESTS AND ACTIVITIES

A major characteristic of most needs, abilities, derived needs, interests, and desires is their dynamic tendency toward stimulating activities, by

which they contribute to a variety of experiences of an adolescent. Interests, as they pertain to adolescence proper, have to be first classified into major categories and then subdivided into typical individual interests and activities. This is done in order to survey them properly and to understand their role in the life of an individual adolescent.

Some interests are self-centered and are expressed in many individual forms of activity; group activity is coincidental rather than basic. These interests and related activities may be identified as *personal interests*.

Some interests, although personally motivated, are other-centered and directly involve participation of other individuals. Group activity is a fundamental means of expressing such interests. Other- and group-related interests will simply be referred to as *social interests*.

The remaining kind of interests pertains to various cultural areas, such as reading, education, science and philosophy, law, music and the theater. Such interests will be grouped as *cultural interests*. It might be interjected that some interests and activities may, under certain conditions, pertain to two or three areas; yet fundamentally they originate within only one of these areas and are so classified. For example, the adolescent's desire for recreation may be seen as a personal interest, yet various forms of recreation are often social in character, and a preference for a particular form of social recreation may be largely determined by environmental opportunities and cultural preferences.

It is noteworthy that interest-related activities not merely exemplify the underlying dynamics but also point up the personality structure and level of development as well. Interests and activities change with age and stage, yet much experimental evidence is needed to derive worthwhile conclusions in assessing the adolescent's maturity or his adjustment on the basis of his interests.

PERSONAL INTERESTS

During pubescence, the adolescent is dominated by introversive and egocentric trends. His concern for himself is often far greater than that which he feels for parents, siblings, and companions. At times he is suspicious of others, and his relationships to them are strained and indefinite. This is a time when many personal interests and activities begin to crystallize and take a definite form. The boy is strongly motivated to demonstrate his bodily, temperamental, and self-adequacies, including all he recognizes as masculine qualities and prerequisites for his recognition as a man. Likewise, the girl begins to feel a necessity to assert her femininity, to promote good looks, and to improve her personality.

There are many individual personal interests, preoccupations, and problems. Several of them are of vital significance to many adolescents and are selected here for brief analysis.

Interest in appearance. During adolescence, concern about physical appearance stands out as a major dynamic factor. It is allied to morphological features of the organism, such as face, complexion, hair, and bodily measurements. Interest in appearance encompasses voice, clothes, ornaments, and cosmetics.

The interests and activities associated with the change of appearance are magnified through the puberal bodily growth. Self-appraisal of bodily transformations and one's comparison to others bring forth new insights and some concerns. By his own experience, the adolescent learns that personal appearance plays a major role in social acceptability or lack of it, especially with the members of the opposite sex. To be accepted or to gain popularity, the adolescent must make efforts to conform in his appearance with the patterns and expectations set by the adolescent and adult society at large. Since social drives are powerful, the young adolescent is anxious to get the approval of others. Hence, his attention is often focused upon himself. He critically examines his size, clothes, and appearance in order to compare favorably with others of similar age. Satisfaction with these estimates naturally raises his feelings of self-adequacy. If he finds a deviation, even an imaginary one, concern and worry appear. This concern is often so pronounced that teen-agers, especially girls, prefer to withstand considerable amounts of pain in order to correct deficiencies. They may temporarily withdraw from group activities rather than be exposed to unfavorable remarks and subsequent feelings of inferiority. Triviality and meticulousness are occasionally exhibited as the adolescent pays much attention to every possible aspect of appearance, and articles of clothing or adornment are adjusted many times. Since the postpuberal physical appearance is almost adult and resists change, the adolescent has to learn to control his feelings and attitudes toward it.

Change of fashions and styles tends to produce additional worries as the adolescent learns to know them through the channels of advertising, television, and magazines. "What makes a woman charming?" is a compulsive question to many adolescent girls. Tallness, obesity, and lack of desired proportions are some of the more frequent problems of the girl. Being shorter than average and being heavy are the characteristics principally feared by the male adolescent. "What makes a man handsome?" may be his preoccupation when the masculine qualities begin to impress him deeply.

If the structure and proportions of the facial features are acceptable to the adolescent, he—and this is especially true of the boys—will show little concern about them. A very important feature is the complexion. Emotional turmoil and mental conflicts are often accompanied by acne and other skin eruptions. While it is difficult for a boy to cover up pig-

mentation and minor skin disturbances, girls can use creams, rouge, and powder to their advantage. Adolescent girls spend much time before the mirror in the hope of achieving an attractive complexion.

Rarely, if ever, is an adolescent girl pleased with the qualities of her hair. Either the color, density, or distribution is unacceptable. Various means are used to modify hair and to keep it in a selected style. Much interest is also paid to the general hygiene of the body, including dental care, control of perspiration, and manicure.

The growth processes at puberty usually affect the vocal mechanism significantly as the speech-productive organs undergo final adjustments to a particular language. When the pitch of voice lowers, cracks in the voice may occur. Difficulties in controlling the voice are frequent among boys, whose voices drop nearly an octave. In girls, the change is much more moderate, and it is not likely to cause embarrassment. Since they recognize that they are being evaluated not merely on their looks but also on the modal qualities of their voices, girls and boys strive to acquire pleasant voices.

Appearance is much affected by apparel, jewelry, and other ornaments. Even a child is concerned with his clothes. Sometimes he refuses to wear a certain kind of apparel for fear of being teased by his classmates. Much concern is shown by the teen-ager. He has no difficulty in realizing the role clothes play in the eyes of peers and in society at large. Personal attractiveness is enhanced by good selection of clothes for an occasion. In order to attract attention, the adolescent often chooses highly saturated hues. Something red is a frequent selection on the part of the teen-age girl. Styles and fashions of the season readily get due consideration. Since decorations on the clothes make the adolescent appear either more mature or sophisticated, many adolescents show much interest in them. A desire for novelty and surprise is an important factor in adolescent choice of clothing and ornaments. Usually by the time the adolescent has taken on the characteristics of an adult and has discarded those of the teen-ager, he has acquired many skills and good taste in the selection of desirable clothing. Then he prefers less saturated and better harmonized colors. In the late phase of adolescence, he is ready to evade conformities in clothing and hair style. Yet his self-reliance, social satisfaction, and efficiency continue to remain affected by proper appearance, behavior, and clothes.

Daydreaming. Fantasy is one of the universal forms of adolescent self-expression and escape. A strong drive for new sensations and experiences finds its partial gratification in this form of self-preoccupation. In daydreaming, imagined activities and the vicarious experiences following them usually fuse elements of past events and future anticipation. The more vivid an imagination one has, the more dramatized will be his

fantasies of his relationship to people and to the world. A noticeable feature of daydreaming is one's assumption of the hero or central role. This seemingly inflates the dreamer's self-importance, which otherwise may be a very difficult task to achieve. Since during puberty and adolescence many persons suffer greatly from a lack of security, from feelings and attitudes of inadequacy and inferiority, from adult restrictions and school requirements, and from real and merely imagined deficiencies and stresses, escape into their realm of fantasy is a major source of relief. This withdrawal into a world of one's own creation offers an evasion of many unpleasant realities.

It is further assumed that fantasy provides the raw material for post-puberal steps in self-realization. The teen-ager pictures his tasks, activities, and aspirations by means of vicarious and idealistic self-projection into future roles and activities. The formulation of a self-ideal is gradually advanced.

Expressionism in dreams and reveries may become too frequent and turn into a deeply entrenched habit of retreat from facing of situational demands. Excessive daydreaming may deprive the adolescent of his self-initiative in the utilization of factual opportunities and of engagement in the constructive learning activities which are necessary in the process of developing a reservoir of abilities and skills. *Puberticism* is a term used to designate this mentally unhealthy attitude of readiness to submerge oneself in fantasies which have little relationship to reality. Ultimately, they may promote neurotic and psychotic tendencies. Some adolescents, though possessing good endowment, cannot properly utilize their potential. They may continue brooding and living in their reveries instead of making any realistic steps to outgrow mental pubescence. More generally, day and night dreaming subside as a person takes practical steps toward an attainment of the higher levels of maturation so characteristic of late adolescence.

Need of literary self-expression. Communication with oneself, or self-reflection, precedes and often supplements the advanced forms of communication with others. As the self-centered baby talk precedes the acquisition of speech, so the imaginary and literary notions precede advanced forms of adolescent interpersonal communication. Literary self-expression is a developmental characteristic for a significant minority of adolescents who experience a strong need to formulate their feelings and thoughts about personally significant events and to render them in some way objectified.

Recording is one of the ways to make experiences self-observable. Diaries, letters, poetry, short novels, compositions of music, and autobiographic accounts in the form of short stories of real life represent the usual forms of literary writing at this phase of life. A need to confide in

an intimate friend is dynamic, but many teen-agers do not as yet have such close friends or do not trust them enough to share all the facts and concerns about themselves. Formulating one's inner experiences and problems and putting them onto paper can be a substitution for intimate friendship. The diary often becomes the first silent confidant to whom many secret desires, behavior problems, and ambitions are told without the author being reproached or getting ashamed about it. Furthermore, the adolescent may consider his experiences, feelings, and thoughts as very important and thus may want to preserve them.

Writings at puberty and early adolescence are primarily signs of emotional growth and social maturation rather than expressions of literary giftedness. From a psychological viewpoint, adolescent writings are equivalent to immature forms of conversation. The pressures of self-expressive drives find an outlet that offers some relief from the feelings of isolation experienced in this phase of psychological development. Writing a diary may become an habitual activity, and in some cases it will not be abandoned at the approach of mental maturity but continued into adulthood.

Leta S. Hollingworth [8, pp. 189-90] and Charlotte Buhler [6] have concluded that diary writing and similar forms of literary preoccupation are typically the activity of adolescents with superior intelligence. A higher degree of introversion during this phase also seems to be related to a vivid fantasy and literary production during the mid-phase of adolescence. Various forms of writing are used more often by girls than by boys [9, p. 210].

Watching movies and television plays of a dramatic and comic type and reading novels, poetry, and stories from "real life" may have similar relieving effects on adolescent emotional tension and may partially satisfy the need of novel experiences.

Self-direction. During childhood, a preference for the performance of activities which have been self-determined rather than determined by someone else is often seen. The desire for self-direction usually becomes stronger as puberty nears and is one of the most dynamic traits of the young adolescent. It manifests itself as a continually rising pressure to break away from many existing bonds and from dependence on others. The need to proclaim one's own mind and personality and to assert what are seen as one's own rights is very pronounced after the onset of puberal changes. Various forms of self-assertion, including aggressiveness in defense of one's own status or relationship, show that teen-agers are more self-assertive than children. A desire for optimal self-direction not infrequently leads to various forms of friction between young adolescents and their parents. Differences of view in regard to the selection of activities, companions, and vocation, social tact and manners, and education are

frequent factors in the parent-adolescent discords. Feelings of being misunderstood and a desire to leave the home are produced when parents rely solely on their experience or authority in maintaining restrictions and inflexible views. Many adolescents, especially girls, find it difficult to achieve their vital right of self-direction. Parents usually consider their own advice, preferences, and controls as very important, and along with some educators, have difficulty in realizing the importance of self-direction and self-reliance on the part of the teen-ager. The adolescent's desire for spending allowances as he chooses, for privacy regarding telephone calls and mail, and for the retreat of a room of his own are occasionally disregarded by parents. The adolescent feels hurt and distrusted when he is asked many questions about where he has been and what he has done. This overprotective practice of the parents often aims to prevent errors which the parents fear the young adolescent is liable to make. The adolescent will make errors as he strives to act on his own, and through these errors he will gain experience which can be relied upon at a later date.

Vocational preference. Vocation is another major area of adolescent concern, especially on the part of boys. At this phase of life, the individual understands the general need of a vocation. Therefore, a realistic consideration about vocational preferences takes place in the second half of adolescence. Occasionally vocational training begins before the teen-ager completes his high school education. An adolescent is often aware of the vocation he would like to pursue, but, as is typical of the adolescent phase, there is not sufficient maturity to allow him to make a serious choice. A considerable minority of adolescents are confused about their vocational possibilities or the education needed for them.

Many adolescents are also pressed to make an early vocational decision long before they are able to evaluate the many factors related to their own endowments and the ultimate consequences of their choice. As a result, a need to change a vocational selection is frequently felt and attempted by young adults. Public opinion surveys related to careers generally reveal a dissatisfaction among the majority of factory workers and a significant minority of those engaged in other occupations.

Studies on adolescent occupational preferences show a high percentage of adolescents selecting professional vocations. This points to a lack of realistic self-appraisal because many of those selecting professions will not qualify for them [11].

Acquirement of occupational status is a contributing factor toward economic security and personal independence. It is frequently allied with improved adjustment and a mature adaptation to the societal forms of life. The achievement of a vocational status is often followed by marriage and acquirement of a new home. Vocation and marriage are thus the two

last major steps toward adult level of maturity. Marriage is the vocation of most girls. As a result, girls' career needs decline as marriage is contemplated. Additional data on vocation and marriage are presented in the next chapter.

Recreational activities. Play is the child's principal form of recreation. During the course of puberal developments, child-play activities are largely discarded. At this age, however, the need for amusement and relaxation increases. Frequently motion pictures, watching TV plays, reading magazines, papers, and books, listening to recorded music, and accumulating collections are some of the typical forms of pubescent recreation. Athletic and creative activities, trips and youth gatherings, and dancing parties are added to the repertoire of diversional activities as the years of adolescence pass if not before.

Recreational interests and activities are closely allied to both socio-centered and culture-centered factors. Additional data on them will therefore be found in the following sections of this chapter.

SOCIAL INTERESTS

Social activities of the adolescent are largely affected by his family attitudes, sex, personality, disposition toward or away from introversion, and environmental opportunities for socialization. A bright extroverted adolescent may be expected to have more social interests than a less bright individual, whose interests will also be different from those of a bright introvert. Adolescent social interaction may be classified by these interests: (1) interpersonal communication, (2) group and party activities, and (3) helping others.

Interpersonal communication. As the years of adolescence pass, interpersonal communication expands. There is, however, a marked difference between the introverts and the extroverts. Extroverted persons are relatively eager to establish many forms of interpersonal communication in order to share their experiences, feelings, attitudes, and thoughts with their compeers. The introverts are kept busy with self-preoccupations of various kinds for some time before they feel secure enough to establish this form of self-expression in personal matters with their companions.

The sharing of personal experience is a fundamental requisite for adolescent adjustment. Many teen-agers appear irritable and in low spirits when they are separated from their best companions. When the adolescent is alone for a long while or far away from his close friends, an accumulation of experience, conflicts, and problems takes place. He soon feels uneasy and is motivated for some kind of communication. Long letters and telephone calls usually serve the purpose of communication

over a distance, and they are often sufficient substitutes for the personal rendezvous.

Generally adolescents prefer activities which offer much opportunity for conversation. The desire to express oneself orally is often so vivid that it is impossible to follow any parliamentary procedure of talking in turn. Even in those places where conversation is particularly disturbing, such as movies or high school classes, continual chattering in a whisper or low tone not infrequently takes place. Much of the leisure time is spent with friends lounging around corner drugstores, which usually serves the same objective, namely conversational self-expression. In the second half of the adolescent span, small group conversations are frequently quite free and frank.

Dating is one of the common forms of establishing more intimate relationships with members of the opposite sex. Since urges for this kind of intimacy exist, dating is used by the adolescent as a means of testing his popularity with selected members of the other sex.

The subjects of interpersonal communication in adolescence run the gamut of the areas of human living, including (1) social events and interpersonal relationships, dates, and participation in athletic activities, (2) sex and morals, (3) jokes, movies, TV and stage stars, (4) reading, (5) teachers and parents, (6) dancing, clothes, and money, and (7) community, church, and political affairs. Personal views and attitudes toward them are expressed as a matter of course.

Verbal activities enhance the individual's art in conversational skills, which generates new interests and attitudes, develops broader viewpoints and amplifies general knowledge, thus greatly enriching the adolescent's personality. It prepares the ground for peer identification and social intimacy. All of these activities are maturity promoting and necessary for the later phases of life.

Group and party activities. A major source for the development of social manners, graces, tact, and adolescent social attachments is group and party activities. Preadolescent interest in group activities enlivens itself in a new form at the age of postpuberty, when the individual completes his physiological and sexual maturation. At this age, his desire to attract companions is expanded to include members of the other sex. With very few exceptions, girls and boys enjoy gatherings and group activities because such activities offer many opportunities to present themselves to their peers, to play various games, and to assume new roles. Whenever music can be made available, dancing may be added. Girls' interests in adolescent parties start about two years earlier because they mature earlier. Boys' interests are often handicapped by their lack of confidence and skill in assuming the initiative.

Teen-agers prefer informal gatherings of their own without adult

participation. Any formal procedure in the adult sense of the term is tension producing and offers little recreation to them. Therefore, many formal parties end in a most informal setting. Adolescents prefer to plan their own parties. Much deliberation is given to details, such as what refreshments are to be purchased, how furniture is to be rearranged, what music to get, and, especially, what clothes to wear. Heterosexual associations during such parties may represent another milestone in the total process of socialization.

Recently H. A. Bloch and A. Niederhoffer [2] analyzed and interpreted adolescent group activities in terms of rites, rituals, and delinquency. Developmental needs, relationships to present-day society and culture were also appraised. The findings indicate that the ritual and stereotyped behavior in the more subtle adolescent activities play a decisive role in promoting feelings of security and a sense of adequacy.

Interest in helping others. Interest in helping others is usually dynamic during the phases of adolescence. It might be inferred that an adolescent's sensitivity to the needs of others is related to his own problems and difficulties. A person in need or distress soon becomes a source of considerable concern for the adolescent even if the person is a complete stranger. His sympathy is undivided when it concerns a friend. Most adolescents are capable of identifying themselves with a man or a group in distress, become ego-involved, and may throw themselves enthusiastically into suggested action. Altruism and charity permeate many of their activities and often outbalance the tendency to discriminate. Severe social injustice and oppression of persons, nations, or religions elicit an urge for assistance and a drive to reform the existing ills.

In applying his powers and resources to helping others, the adolescent is ready with advice and service as well as sacrifice. Various social services attract the minds of the adolescents. Since the teen-ager is quite gullible and easily suggestible, persuasive speakers may elicit their energies for any kind of radical ideas. Without considering the sacrificing support of the youth, the success of European communism, Nazism, and fascism could not be explained. Youth fell prey to their advanced propaganda techniques. Moreover, the extremist, with his ideologies, seems to have a specific appeal to adolescents. The will to reform may be elicited and readily directed toward various parts of the environment: home and school, community, state, and the world at large.

CULTURAL INTERESTS

The adolescent is capable of responding specifically to various dimensions and factors of his own culture as well as culture in general. As a result, views and interests related to cultural factors, such as education,

religion, science and philosophy, reading matter, entertainment, law, and politics, emerge and grow as the adolescent level of development is advanced. Intensification of cultural interests is more closely allied with late adolescence and early adulthood.

Education. Education is a process in which the adolescent is deeply involved. Not only does it account for a major portion of his daily activity, it also serves as a major testing area for his rapidly expanding modes of intellectual and social adjustment. The curriculum, teacher's personality, group relationships, and extracurricular activities are all factors affecting him directly.

Because curricula differ from one school system to another, because his powers of intellectual inquiry and reasoning advance so rapidly, and because he frequently displays considerable idealism, many important issues arise for the adolescent. To what extent, for example, should purely academic subjects be studied, especially when such topics are not directly related to vocational aspirations? What is the responsibility of the school with regard to preparing the individual for special trades or professions? What duty, if any, does the school have in teaching certain fundamental moral and religious concepts? What emphasis should education place upon the development of personality traits and social skills? How should various subjects be taught in order to make them most effective? What are the traits most necessary and desirable for a teacher? These and many other questions confront the adolescent as he continues his education.

Because of his tendencies toward idealism, together with his inability to perceive many practical problems, the young person often expresses considerable criticism of modern educational systems and educators. In many such cases, to be sure, such criticisms are not without merit. The questions raised, the answers proposed, and the personal reactions to these, however, provide significant information regarding the personality dynamics and level of maturity of the individual. Resistance to school authority and its rules is one frequent response observed among young persons. Coupled with this is the reaction of truancy. On the other hand, frequent attempts to assist and identify with teachers may be seen. Some idealistically inclined adolescents even seek to introduce various reforms within the school, including its educational philosophy. The magnitude of the problem of reconciling the conflict between school-oriented tasks and personal desires, however, is clearly revealed by recent studies which show that approximately half of the young persons in this country possess a moderate to strong desire to discontinue their education before the state law permits.

Religion. Religion penetrates all aspects of human life—personal, social, economic, and cultural. Whether in a positive or negative sense, it is a

major motivational force during adolescence. Religious reevaluation occurs, and the great majority of adolescents respond sensitively to religious truth. They may worry about some religious issues, since these are variously explained. Although most adolescents believe in God and life hereafter, doubts are frequently reported regarding some specific dogmas of faith or some practices. The transition from childhood religious concepts to a mature acceptance of religious values and practices is not smooth for many adolescents. Yet in many cases the religious reevaluation is a gradual process rather than an abrupt and deeply emotional change of experience and attitudes. When developed, a deep and abiding faith has emotional, moral, and intellectual constituents, and it affects the total individual. Religious maturation is often completed at the college level since college education often favors a development of a religious philosophy of life. Religion is a source for the most comprehensive philosophy since it embraces goals and relationships of the individual during this life and identifies the life hereafter as a chief purpose for which to strive. For the adolescent, then, religion is a source of ideals and goals. When its values and principles are clearly comprehended and incorporated into the total personality, it motivates and directs behavior. Moreover, it enables the adolescent to evaluate his experiences and conduct and to recognize their ultimate meaning to him as a responsible individual.

Science. Science, as well as philosophy, appeals to the adolescent as his intellectual capacities approach the adult level. Adolescents often imagine science and science-oriented philosophy to be a source wherefrom he can gain final answers to his questions. Scientific source books and encyclopedias may be seen as major sources of human wisdom. Adolescents may make some efforts to contact these references in order to gain specific information. Naturally they often fail to realize that each bit of progress in science opens many new issues and questions, that scientific knowledge at best only approximates the truth but usually does not reveal it.

In late adolescence, capacity for conceptualization and theorization increases markedly. However, because of the adolescent's inexperience, the findings of science, as compared with those of revelation, often appear to him to be in conflict.

Reading matter. Reading matter affects youth in many ways, and an adolescent's reading choices tend to reveal his areas of interest and concentration. Books, magazines, and pamphlets commonly read by adolescents show their level of interest concentration. The frequency of reading sex magazines seems to indicate a lack of balance in present adolescent reading. The lives of famous historical personalities, literary figures, and Saints, however, fortunately rank high with a significant number of adolescents.

The reading matter and pictorial arts used by adolescents offer much material for their vicarious experiences and recreation. These materials also aid in the process of adaptation to the American way of life. At the same time advertising elicits many new desires and wants. In this way it may become a conflict-inducing force since adolescents often lack financial means to follow the whims elicited by advertising.

Entertainment. Entertainment basically serves the purposes of distraction and recreation. It encompasses music and theater, radio, TV, motion pictures, and creative and athletic activities. Normally the adolescent's interest is directed toward most of these, yet environmental facilities and financial factors may restrict his participation to two or three areas. Adolescents need a variety of recreational activities to absorb their energies and apply their abilities and skills. A balanced repertoire of such activities furthers the physical and mental stature of the individual. Since many recreational activities are social in character, the adolescent finds opportunities to test his social graces and skills.

Law. Law of the state and ordinances of the community are related media of social control with which the adolescent comes in contact. Since the teen-ager did not have any say of his own in the process of legislation or the establishment of the law-enforcing institutions, he is likely to disregard and come in conflict with some specific regulations. The expression of his aggressive tendencies may also infringe on a law. Adjustment to some laws and regulations may be a slow process for a significant minority of the adolescents. They may fail to realize that only the most primitive societies can afford to act on custom. The intricacies of social intercourse in a highly specialized society require regulations and law in order to preserve order and to protect the rights of the individual.

Politics. Politics, another area of culture, affects the adolescent and elicits his interest in political and diplomatic affairs concerning his country and its relationships to other states. The teen-ager is often curious about elections, international conferences, reforms, *coups d'état*, and revolutions. Travel on his part may strengthen his curiosity to gain knowledge about other cultures and nations and may promote global-minded views instead of the frequent provincial isolation. The questioning of legal authority may be interpreted as evidence of the adolescent's general search for autonomy and independence.

In studying the factors of adolescent motivation, one should bear in mind the pivotal relationship between the frequent and powerful promptings from within and the situational opportunities of the adolescent's milieu, both of which mold and direct his energies and drives into adequate or inadequate patterns of activity and experience. The following chapter on personality development brings together many clarifying facts and interpretations on this point.

QUESTIONS FOR REVIEW

1. Identify a psychogenic need and indicate its valences during the phase of adolescence.
2. What do human needs have to do with the development of adolescent interests?
3. List several developmental tasks of adolescence and explain one of them. What might be some of the results if certain developmental tasks were not mastered throughout adolescence?
4. Enumerate several personally centered interests. Select one for your detailed elaboration.
5. Identify social interests. Explain one of them as it applies to the different phases of adolescence.
6. What are the cultural areas which elicit adolescent interest and concern? Select one cultural area for detailed analysis. Relate it to the present-day adolescent population.
7. What is the role which interests and interest-based activities play in the process of adjustment of an adolescent?
8. Explain what cultural interests have to do with personality and character formation during adolescence.

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Development of Personality and Character

PERSONALITY evolves by a gradual process of development and maturation of the physical, mental, emotional, social, and spiritual qualities of an individual. Each of these aspects of growth and development are inter-related; they act and are acted upon by each other, and each quality relates directly or indirectly to the person's total responses to his environment. The individual's unique configuration or pattern of responses to his environment is called personality.

These major aspects of personality—physical, mental, emotional, social, and spiritual capacities—have certain needs or tasks that must be fulfilled before further development can take place. Physically, a child or adolescent needs food and exercise for somatic development. Emotionally, an infant or child needs affection and security. Mentally, socially, and spiritually, the child needs opportunities to develop skills which can be mastered only by frequent experiences. One or another of these aspects of development may present conflicts for the individual at various times, the solution and mastery of which leads the individual to a greater degree of maturation. A system of traits, attitudes, interests, habits, and activities is slowly formed as a result of the many experiences encountered by the child, and these qualities and characteristics tend to give the personality a certain observable pattern.

Adolescence is a key phase of final personality development and integration. A fully mature personality is possible only when all major growth factors have had an opportunity to develop toward their maximal capacity. It is of paramount importance that an individual goes through each successive level of development before a final integration of

personality structure can take place. The pattern of personality as set in childhood is revised during the phases of adolescence when new factors and experiences enter the individual's life and affect personality organization.

Briefly, some of the new factors and experiences which arise in adolescence to alter the personality are (1) rapid physical changes, (2) sexual maturation accompanied by new emotional urges hitherto unknown to the person, (3) a greater awareness of self resulting in a desire for self-direction marked by a reevaluation of standards, aims, and ideals, (4) an intense need for socialization with emphasis on heterosexual friendships, and (5) numerous conflicts arising from the fact that the adolescent is part child and part adult.

Relative stabilization and integration of personality are reached during the years of late adolescence and early adulthood when the person finds his place in society and has gained control over his feelings and himself. Some individuals, however, may never reach maturity in all dimensions of their personality.

Lack of personality development can often be caused by a low biological and mental endowment but also by remaining too long in any one of the childhood or adolescent stages of development, which is often due to the lack of proper parental guidance. Remaining immature usually involves fixations and a lack of an experimental attitude. These fixations restrain flexibility and learning, and so lower the maturation of personality. Trivial difficulties in adjustment during childhood may later become more powerful influences generating problems and antisocial behavior. Early frustrating and conflict-producing experiences leave deep imprints which act as organizers of anxiety, hostile attitudes, and destructive activities.

ABILITIES AND ASPIRATIONS

Adolescents are unequally endowed in both major and minor capacities, in physical capabilities and mental powers. The repertoire of acquired abilities and skills differs extensively too. Aspirations formulated during the phases of adolescence are usually high. Many young persons are striving for goals and achievement levels which are out of reasonable proportion to their endowments and acquired abilities. Analyses of adolescents' goals and ambitions are often remindful of neurotic and prepsychotic inconsistencies. Since their aspirations are unrealistic, they often fail to attain the goals they seek, which then elicits deep disappointment. This is often accompanied by feelings of self-inadequacy tinted with depression or excitement.

The resultant conflicts and frustrations bring forth either constructive

or in some ways unsatisfactory reevaluations of oneself and society. Hostility and aggressive tendencies may accumulate and grow into powerful forces leading to struggles against societal regulations and, especially, against persons of authority.

Many adolescents and young adults have difficulties in discarding unattainable and too idealistic notions of their aspirational structure. Ego weakness and lack of self-understanding apparently contribute much toward this distorted picture. Parental pressure toward raising status is also an important factor in promoting discontent. An adolescent's appraisal of his level of endowment and capacities usually lacks in depth and applicability. Repeated failures only may make him aware of some deep inconsistencies in self-appraisal. Attuning of aspirations to abilities and skills is a major task in avoiding severe conflict situations and in promoting personality development.

The realization of one's inner life, of promptings related to one's endowments and assets as they form a frame of reference for selfhood, constitutes the core of adolescent personality development. The inner life is elevated by a magnified self-awareness and a tendency toward reflection. As a result, questions arise about phenomena and events wholly accepted before. The adolescent reevaluates himself, his feelings, beliefs, desires, and joys. He also considers and reestimates his companions, parents, teachers, education, and the world at large. They appear now in a new light. He ponders his future and his place in society, his relationship to God, and his religious obligations. Frequently he is concerned with his present status and problems of adjustment due to the inconsistency of his emotional responses, which are unpredictable and likely to lead him into personal troubles. The efficient utilization of intellectual powers for self-study is a prerequisite for the advancement of personality organization into its highest operation. The resultant behavior may be seen as a major index of personality development.

Adolescent personality growth is marked by a progress toward more adequate social responses to fellow adolescents of both sexes and adults as well. A desire to acquire permanent companions of the other sex and to follow the adult pattern of social interaction is a cardinal sign of personality growth. Vicarious exploration of interpersonal relationships in movies, biography, and fiction give way to a more realistic approach. Girls, and to a lesser degree boys too, begin to think about qualities desired in a prospective life partner. Gradually their heterosexual associations and friendships become more selective because some more realistic notions about later life appear. The adolescent is very dependent on his peers as a group for support and encouragement. This dependence is a deep social need for at times it seems to the adolescent that these associates are the only people who fully understand him. Their capacity for

understanding is strengthened by experience of similar changes and trials. Quite frequently, peer approval is of utmost importance, even to the point of causing conflicts with parents and other representatives of authority. The adolescent's selection of emotionally and morally mature friends is highly desirable because the standards and values of the peer group have a strong and lasting influence on each of its members. Generally, adolescents who are raised in a morally acceptable and emotionally mature environment will tend to seek friends of this level—they do not need vicarious “kicks.”

VALUES, ATTITUDES, AND IDEALS

Values and their derivatives are intrinsically related to meaning. V. E. Frankl of Vienna introduced a very useful concept, the “will to meaning.” This term finds a specific application in the adolescent's quest for values and virtue during this heightened period of experience. The self is not merely a core of personality but also the center in one's personal search for standards and ideals. Before adolescence begins, some values and attitudes have been embraced by the child and preadolescent. If emotions and sentiments are adequately developed, an adolescent's response to externally embodied values will be magnified during the later part of adolescence. Through repeating individualized responses to values and ideals as these are portrayed by his peers, parents, and community, an adolescent develops new traits and attitudes. New views and convictions are added when intellectual abilities are set into action in the total process of reality evaluation. There is common agreement among experts in the field that values, attitudes, and ideals act as prominent organizers of behavior as soon as an adolescent assimilates them. Through experience, the adolescent is able to bring his scale of values into focus and to set standards based on these values. He must, however, rely upon himself for this analysis so that he can properly evaluate his goals in life and ascertain the means necessary to obtain the goals.

As has been pointed out, a primary source of information pertaining to the interpretation of meaning and values is the social environment of the adolescent. Values and meanings are “taken in” from significant persons such as parents, teachers, and peer-group leaders. Peers begin to rank high as an adolescent moves to free himself from parental and adult influences. Occasionally, life-determining decisions are the results of intimate friendships. In the advanced years of adolescence, societal and cultural norms and expectations gain substantially in their conditioning power.

Late adolescence is an age during which the formulation of a value scale often becomes final. Many adolescent difficulties can be traced to

the fact that our society has no set norm of values. As a result, the adolescent is unable to understand the importance and place of religious and moral values and activate them in his own plan of growth and adjustment. More than occasionally the ultimate source of value or sanction remains unidentified. An illustration of this may be taken from the work of the Educational Policies Commission of the National Education Association of the United States and the American Association of School Administrators [2, pp. 18-30]. The commission has attributed supreme importance to individual personality as the basic moral and spiritual value in American life. If this is the case—continues the Commission—the other leading tenets include these:

1. Each person should feel responsible for the consequences of his own conduct. Moral responsibility and self-direction are marks of maturity.

2. The human mind should be liberated by access to information and opinion.

3. Excellence in mind, character, and creative ability should be fostered.

4. Each person should be offered the emotional and spiritual experiences which transcend the materialistic aspects of life.

The advice to help people “transcend the materialistic aspects of life,” with the indication that “the individual personality is supreme” in value, sheds little light to help the child, adolescent, teacher, or parent as the authors fail to give concrete suggestions for putting the advice into practical use. Also, such questionable interpretation of “supreme value” is sufficient to call forth a conflict or promote an ambivalent attitude toward identification of supreme values. Too often education leaves the adolescent to act on his own resources. It is difficult for him to solve educational and culture-reinforced conflicts. It is possible that some of these unsolved conflicts lead to the formation of the neurotic personality so common in our time. Since a hierarchy of values is not formed, many traditional values are rejected and the empty sphere is not filled with acceptable substitutes. Therefore, a conflict situation emerges in which the involved person is referred to as unrealistic. What to do in situations where suggested tenets conflict, for example, the principle of equality versus respect for excellence and self-direction versus a common decision, is not sufficiently explained. The development of a full human nature implies the necessity of a religion-oriented scheme of values. The school should serve as one of the main channels for this scheme.

Two added theses, (1) that the teaching of values should permeate the entire educational process, and (2) that all the school's resources should be used to teach moral and spiritual values [2, pp. 55, 60], are excellent, but impossible in terms of the tenets already mentioned. The

same applies to the demand for "the public school to teach objectively *about* religion without advocating or teaching any religious creed" [2, p. 77]. Increased confusion is bound to result when the assumption is made that American education must be derived from the "moral and spiritual values which are shared by the members of all religious faiths." The religions vary too much to agree on a common course for teaching religious living. A basic course suitable to all religions would be much too vague to be of any significant help to the individual student professing a faith. It is felt that a course in religion common to all faiths would present many controversial issues without offering concrete guidance.

Two further quotations may shed some light on the issue of religious education as seen by the Educational Policies Commission:

To omit from the classroom all references to religion and the institutions of religion is to neglect an important part of American life. Knowing about religion is essential for a full understanding of our culture, literature, art, history, and current affairs. That religious beliefs are controversial is not an adequate reason for excluding teaching about religion from the public schools [2 pp. 77-78].

The Commission comes to the conclusion that the public schools will continue to be indispensable in the total process of developing moral and spiritual values, and that they can and should increase their effectiveness in this respect [2, p. 100].

The authors agree with this conclusion and consider teaching of religion in schools as a factor crucial to the development of a mature personality and moral character. Why should religion be any more isolated from daily living and learning than reading or arithmetic? The more religious ideals and principles can be integrated into the curriculum, the more meaningful this aspect of daily living will be for future living. This is one advantage of private and church-related education. However, just because public schools are not sectarian and their teaching of a common course in religion is not feasible, should educators feel they can disregard the need for religious education? If a method has been found in the public school system for teaching controversial issues and tenets in social and other sciences, then there should also be a plan for teaching religion whereby each student could receive instruction in his own faith. An example of a satisfactory solution is offered by the Public School System of New York City which has a released-time program wherein children are dismissed early one day each week to attend religious classes at a nearby parochial school, church, or synagogue.

Adolescent attitudes. The formation of adolescent attitudes is closely related to the home environment, experiential background, parental values and interests, socioeconomic class, the neighborhood in which the

adolescent lives, and his race, original nationality, and religion. The school he attends may also have a considerable bearing. The adolescent is most directly influenced by peer opinion, evaluation, and interest. While most adolescents exhibit a considerable ability to resist the influence of other factors, they appear almost defenseless against the spirit, standard, and planning of their peer reference groups.

Since most of the factors which affect adolescent attitude formation are intricate and vary considerably from class to class and within each major section of the country, it is difficult, if not impossible, to sketch briefly this aspect of adolescent development. Under the surface of a great variety, however, there are several general and permeating attitudes which mark adolescent behavior in each generation.

Emancipation from the home is a general tendency leading to the change of the childhood attitude pattern. A marked increase of abilities during puberty favors autonomy and increased self-direction.

Self-direction is not only a goal which the adolescent desires but also a prerequisite for attaining adult status. In early and middle adolescence, the major impetus appears to be freedom from parental control. Only when this is satisfactorily achieved can the task of liberating himself from peer-group domination be undertaken by the adolescent. Both influences, as major determinants of behavior and attitudes, must be subordinated to self- or inner-direction before the years of adolescence expire.

In the part of adolescence when the individual's major concern is to direct his own life as opposed to parental direction, the peer group is not as yet seen as a directing force but rather as a supportive element in the parent-adolescent conflict. The adolescent more and more expects and demands privileges of an adult. Frequent among these are the use of the family car, the selection of his own clothes, and the lack of a curfew. These are the problem areas in the adolescent's striving for autonomy. Although it is true that the demands may be out of line with the adolescent's level of maturity, it is also true that parents often try to maintain their authority and control over various areas of their children's lives beyond the time at which it should be relinquished.

Adolescents must be given the opportunities to make many of their own decisions if they are to be able to make them satisfactorily as adults. The mistakes they make in adolescence can be corrected and, more importantly, profited from. If decision making is not allowed the adolescent, he will be ill equipped as an adult to direct efficiently his energies and talents toward worthwhile goals. More immediately, his need for independence will be severely frustrated, and will foster the development of negative attitudes toward parents and authority in general. The limits of the adolescent's sphere of self-direction must be increasingly widened,

beginning with the first indications on the part of the adolescent that he is eager to take over the direction of his own life. Parental prudence and experience must determine the limits of the adolescent's autonomy.

In this area, the adolescent's attitudes toward self as well as family and peers are changing rapidly, and parental understanding and discreet guidance can do much toward shaping these attitudes into healthy, socially accepted modes of expression.

At the time of puberty changes, and in early adolescence, individuals are particularly susceptible to prejudice. This is due to several factors. The volatility of emotions is extremely high during this period. Emotions and behavior are often far out of proportion to their stimulus because of the changing physiological and psychological dimensions of personality. Also, emotional control is low and often inadequate, in part because of the lack of integration within the personality. The extreme sensitivity of the adolescent at this stage often produces feelings of inadequacy, insecurity, and inferiority. These feelings are intolerable to the individual. Often compensation, in the form of attitudes of hostility and prejudice toward other groups, is utilized as an ego defense dynamism. This "scape-goating" and projection, although a relief of tensions for the adolescent, is a form of maladaptive behavior which hinders rather than helps the individual in his progress toward maturity and personality integration.

Adolescents at this stage of development are suggestible and easily influenced by the attitudes of others, particularly the peer group. If one member, especially the leader, of an adolescent's peer group has strong feelings of prejudice, these undesirable attitudes will be readily assimilated by the others.

The prevention of attitudes of prejudice is much easier than their correction. Proper example on the part of parents, wholesome attitude formation during childhood, association with members of other groups, and parental promotion of the adolescent's feelings of adequacy and security all will act as deterrents to the formation of these attitudes. If, on the other hand, the adolescent is predisposed to prejudices by parental word and example, diffuse feelings of hostility will be elicited and projected toward various groups of persons. Destructive tendencies may readily arise and various antisocial activities may result. Therefore, attainment of social maturity will become a task difficult to achieve.

Following is a case abstract which points to defective foundations for adolescent personality formation.

John is a tall, rather handsome high school senior, aged seventeen. He is currently in a home for boys, having been placed there by a juvenile court for several violations of the law, ranging from truancy to car theft.

John has an extremely negative attitude toward authority and has difficulty relating to the other boys. He often becomes involved in disciplinary prob-

lems, and evinces no interest in conforming to what is expected of the other boys.

John has an above-average intelligence but lacks motivation to settle down and apply himself. He has almost a complete lack of frustration tolerance, and is extremely impulsive. Throughout his school years, John has often been at odds with teachers and school authorities.

John's early home life may be seen as largely responsible for his problem. His father was an alcoholic and punished him severely for real or imagined infractions of any rule. John's mother, on the other hand, was too lenient, and admitted that John too often had his own way with her. John feels that his father was no good, and is to blame for his problems.

The pattern of John's adjustment to life is hazardous. The outlook for him is not promising since he lacks satisfactory relationships with others, and his negativism is deeply internalized.

HETEROSEXUAL RELATIONSHIPS

A marked heterosexual interest appears at the age of thirteen or fourteen in girls and at about fourteen or fifteen in boys. This interest and curiosity are closely related to the individual's sexual maturation occurring at puberty. Girls desire to attract attention on the part of boys and vice versa. A desire to make frequent social contacts and attain companionship also arises at this age and continues to increase as the years of adolescence pass. Since most schools are coeducational, young persons make a variety of contacts with members of the other sex throughout the years of school. Each sex learns much about the characteristics and interests of the other sex.

The early and middle stages of adolescence are marked by a strong interest in members of the other sex in general rather than in a single individual. Therefore, group activities exert a strong appeal. Since boys are curious about "anyone wearing a skirt," and girls are interested in "anyone wearing trousers," this phase is marked by a "girl-crazy" and "boy-crazy" attitude in heterosexual relationships. Toward the end of adolescence, the heterosexual interest begins to center on one particular individual of the other sex. When one or two romances fail, girls in particular become cautious and more selective before "falling in love." At the point of attaining adult maturity, sex drives and erotic sentiments fuse into a single and powerful force of motivation, leading toward an increased desire for associating fully with "the only one" and a desire for marriage.

During early, group-conscious adolescence, dating is a frequent form of heterosexual contact. It is marked by conversation and such activities as attending shows, dancing, and frequenting drugstores and restaurants. Observation and a deeper insight into overt personality traits of the

opposite sex result. When the impressions are positive, they call forth affection and love identified by some investigators as infatuation, or "puppy love." Somewhat like this is "love at first sight." The persons are not as yet sexually and emotionally mature enough for a long-term intimate association. Through their expectations of finding an ideal companion, they are readily "hurt." Envy, jealousies, and quarrels occur and readily lead to the arousal of antagonistic emotions. A break of each intimate association elicits some feelings of inadequacy or depression. This is often accompanied by a total reappraisal of the self-concept and one's own status, which, in turn, strengthens one's struggle toward maturity.

ADOLESCENT CONFLICTS AND PROBLEMS

Adolescent behavior often conveys a surface impression of gay and carefree activities marked by rollicking antics and enthusiasm for living. Beneath the shiny veneer of adolescent self-expression, however, the trained observer notices marks of anxious and desperate hours of young persons undergoing a decision-making and problem-solving period of development. In learning to adjust to his own changing body and motivation, assailed by new yearnings, aspirations, and desires, the adolescent is subjected to struggles within himself. Life is presenting new goals and different evaluations; he becomes increasingly aware of new relationships to parents and peers which the previous modes of responding do not sufficiently serve. Problems in adjustment spring from many sources, such as utilization of new abilities and urges, feelings of love and hate, restlessness and discouragement, adult wants and childhood drawbacks.

During adolescence mental conflicts arise from a variety of causes. Difficulty in gratifying psychological and social needs is one of them. The need for new experiences to which to apply newly acquired abilities and skills is an urgent need at this age of rapid and many-faceted developments. Avid curiosity and a desire to know and understand all aspects of reality transcend earlier horizons in most directions. Dissatisfaction with the daily routine and current situations enhances the tendency to seek thrills and the sensational. This may lead at times to desperate risks involving a severe disregard of law and convention. Adolescent excitement at times ignores all limits. Although the needs for self-assertion and appropriate recognition are common to all individuals, their great amplitude and striking power in the adolescent make them especially strong sources of conflict and dissatisfaction. Strong desire to associate with others results in joining or forming cliques, clubs, fraternities, sororities, and other formal and informal groups. Intensified group activity at times interferes with school and home responsibilities.

Conformity to the accepted standards of communication, dress, and manners often suppresses individuality. Sexual impulses and heterosexual strivings may conflict with moral and religious principles. Turmoil and uncertainty handicap the adolescent's attempts to bring personal strivings into accord with social and cultural demands. The "tough-minded" extrovert may openly rebel against parental pressures or social regulations. The "tender-minded" introvert may attempt to escape his dilemmas by retreating into reverie. Erection of a shell of ego-protective dynamisms may follow. A lack of emotional balance, fluctuating high and low spirits, exhibitionistic tendencies, and restlessness are frequent traits of adolescent personality. The presence of any, single or combined, aggravates the nature of conflict and produces tension and a need for discharge. External situations, such as quarreling parents, being nagged and teased by a member of the family, having to be in school, and being misunderstood or rejected by peer groups and others, add much fire to the internal stress. Regression to a puerile level of adjustment or aggressive resolutions of the mental strain may occur spontaneously. A lack of proper recreational facilities for the key adolescent interests—social, athletic, and creative—favors regression. The adolescent is a complex personality, and a multitude of influences affect his search for status and for gratification of his basic and acquired needs. Frustrations and conflicts are practically inevitable and bring the need of intrapsychic self-defense into focus.

The thwarting of drives and impulses related to the satisfaction of underlying needs is closely associated with the rise of emotional dynamics. Affective responses arise when internal or external limitation, inhibition, or obstruction of a drive or desire continues. The increasing intensity of emotion may result in violent and disorganized behavior directed against one of the felt sources of deprivation.

Ambivalence. The concept of ambivalence represents the presence of antagonistic tendencies toward the same object or situation. The young adolescent is often torn between admiration and denial, attraction and repulsion, frenzied activity and idleness. His bipolarity of emotion and thinking points to a lack of harmony and fusion among his various psychobiological drives. This is especially true when the sexual drive becomes involved before sexual and emotional maturity is attained. Lack of perspective and moderation seems to reinforce the states of doubt and ambivalence. Not infrequently adolescents (and even some adults) cannot make any important decisions by themselves. Often their closest friends make decisions for them.

Self-defenses. The level of adolescent development permits unrestricted introjection of sundry modes of responses, the self-defenses by

means of which the person attempts to reestablish a temporary balance between internal forces and regulations and external pressures.

Excessive use of self-defenses may involve a variety of dynamisms which, because of their use, are gradually incorporated into the self-system of a growing person before he is able to assess their full consequences or implications. Some of these dynamisms are compensation and substitution, rationalization and displacement, introjection and projection, fixation and regression, sublimation and identification, and repression and reaction formation. Let us clarify some of them which are applied by many young persons.

Rationalization is a dynamism the use of which begins in the early years of childhood and occasionally continues throughout life. It is a mode of self-justification by finding reasons to excuse oneself from criticism or punishment. Various factors in a situation are misinterpreted by an individual in order to secure a consistency between his own expectations and the estimations of others.

Projection refers to a dynamism whereby personal weaknesses and undesirable qualities and traits are attributed to other individuals and other external sources. Thus, some undesirable factors of the self are unconsciously treated as though they existed in another and not in oneself. For example, traits of dishonesty and hostility are often projected; when this occurs, lying and aggressiveness are seen by the individual as characteristics of others.

Any reversion to an earlier, less mature level of functioning signifies *regression* rather than situational response. When an individual is exposed to a frustrating or very strained experience, his mature mode of adjustment may not be adequate. Some more primitive tendencies may be used to protect the self, and if the source of frustration or stress is not removed or resolved, this response pattern, properly called regression, may become habitual and permanent. The level of regression may be estimated in terms of the number of years a person's behavior and interests regress, just as intellectual development can be expressed by means of mental age.

Neurotic tendencies. Fierce and prolonged conflict situations lead some adolescents, those with neurotic tendencies, to mental disturbances and an inability to integrate their personality variables into a unique functional system. As a result, anxiety intensifies and forms a basis for a neurotic pattern of behavior. Of the various forms of neurosis, the adolescent level of maturity appears to be more liable to conversion reactions, anxiety attacks, and obsessive-compulsive behavior. In more extreme cases of maladjustment, psychotic reactions, such as hebephrenic or catatonic schizophrenia may emerge.

Insistent, irrational ideas or actions which the subject may recognize as illogical, but which are nevertheless attended to because of the tension reduction they bring, are responsible for *obsessive-compulsive* behavior. The tension brought about as a result of trying to ignore or suppress these urges is almost unbearable to the individual. The underlying cause of this behavior is usually a deep sense of inferiority or guilt which creates tension and expresses itself symbolically in ideas or behavior which relieves this tension.

Adolescents often experience guilt over the new feelings and urges which arise naturally as a result of puberty changes. Menstruation in girls and nocturnal emissions in boys often produce guilt which in some cases leads to obsessive-compulsive behavior. This is especially true when knowledge of these phenomena is incomplete or entirely lacking, or when negative attitudes toward matters pertaining to sex have been developed. Once again the importance of sex information prior to puberty is clearly indicated.

Frequent and unnecessary hand washing is a compulsion usually indicative of a deep sense of guilt, often attributable to sexual factors. Of interest is the fact that guilt may be projected into the future. That is, the hand washing or other compulsion may be an immediate defense or an attempt to prevent proscribed actions which the adolescent fears he or she will commit. Anxiety is easily seen as a contributing factor in these cases.

Obsessions are irremovable ideas which constantly impinge upon a person's consciousness and seriously disturb his efficiency and adjustment. The content of these ideas may be almost anything: fear of insanity, sexual fantasies, or hatred for parents. These ideas readily arise in adolescence, in part because of puberty changes, heterosexual attraction, the need for independence from parents, and other age-related factors. A lack of complete sexual information or the concomitant moral instruction necessary to satisfactory sexual adjustment, overcorrective or dominating parents, and lack of self-knowledge and experience may all contribute to obsessions and consequent maladaptive behavior in adolescence. If discovered early enough, obsessions or compulsions may be successfully treated. But often they are not made known in time, and persist throughout adolescence and into adulthood. In these cases psychotherapeutic treatment is necessary but its success is less certain.

Anxiety is an unrealistic and morbid fear of threats and dangers to the life of the person. It is out of proportion to any stimulus and is usually undifferentiated and diffuse. Adolescents, because of the multitude of adjustments and decisions which they must constantly make, and because of their level of maturity and lack of pertinent experience, are

easy prey to this type of emotional disturbance. The tensions resulting from physiological changes, lack of muscular control, and the indecision and ambivalence in many areas of their lives readily lead to intensification of anxiety. When these tensions or anxieties accumulate, and if their energy is not otherwise dissipated by activity such as athletics, anxiety attacks may be the result.

Anxiety attacks are detrimental to both the physical and mental well-being of the adolescent. They produce the same physical and physiological excitation as does fear, and mentally they are even more debilitating than fear in that the anxiety-producing stimulus is not a specific object or event which can be dealt with or from which the adolescent can flee. On the contrary, the adolescent does not know what he is afraid of, or what catastrophic event is going to take place; rather, the fearful feelings attach themselves easily to any forthcoming event. Yet when the event has passed, the anxiety remains.

Calm and deliberate reassurance is often of great help in allaying anxiety. If the adolescent can be convinced that his fears are shared by others, and that others are surmounting these fears and adjusting satisfactorily to new situations in spite of them, he may be helped. If the anxiety is rooted deeply in the personality, then counseling and psychotherapy may be the only means by which the adolescent can rid himself of this affliction.

Conversion reactions are essentially a symptomatic externalization of an inner conflict or anxiety which is usually not recognized by the individual. The conflict is usually of such a nature that it is unacceptable to the conscious mind and is expressed in physical symptoms. These symptoms may be of many types: amnesia, writer's cramp, hysterical paralyses, anesthesia, and neuromuscular convulsions are a few. There is no organic basis for conversion symptoms. They are not physically or neurologically caused. Rather, they are purposeful, unconsciously adopted methods of resolving the conflict. Cardiac disturbances, severe pain, or nausea may be utilized by an adolescent as a more or less honorable method of escaping stress situations.

Conversion reactions, one of the most common of the neuroses, are usually found in individuals who have habitually reacted to reality in an evasive or escapist way. A strong reliance on defense dynamisms is also usually a part of the individual's past.

Adolescents, because of their lack of personality integration, absence of pertinent experience, or other related factors, may adopt this method of maladjustment in order to relieve their conflicts. Antagonistic tendencies, such as the need for independence and the duty to love and obey parents, may be another contributing factor. A combination of strong moral precepts and sexual fantasies may produce yet another conflict

unacceptable at the conscious level. If the adolescent is unprepared for his new needs and urges, they may be repressed, remain dynamic, and after accumulation, express themselves in conversion symptoms.

The prevention of conversion reactions begins in childhood. The individual must be taught to face and deal with reality. Once a pattern of evasion and escape is built up by the individual, the problems and conflicts of adolescence may prove too much for an already precarious adjustment. Dealing with these problems after such a pattern has taken hold is very difficult, because the individual is usually unwilling or unable to bring the conflict to the surface where it might be understood and dealt with effectively.

Delinquent trends. Delinquent trends often appear as reactions to continual frustration and prolonged lack of success. Some adolescents tend to respond to situational frustration by verbal or physical aggression. Aggressive behavior involves some form of attack, such as using abusive language, or provoking or striking another person. According to N. R. F. Maier [8, p. 101], when a frustrated person strikes another individual, he is doing so not to remove him as an obstacle or to injure him, but because he is frustrated and too tense. Removal of the obstacle or infliction of injury is secondary. At times, the immediate response to frustration may be an apparent self-control and toleration of the situation, yet the elicited aggressive tendencies may show up later. Thus, various aggressive reactions may be temporarily delayed, compressed, disguised, displaced, or otherwise deflected from the original source. When tolerated frustrations accumulate, a slight provocation may lead to a violent or destructive response. J. Dollard and N. E. Miller [4] believe frustration to be always accompanied by aggression. Granting the possibility that some aggressive energies can be compensated for, or sublimated and constructively expressed, it may be expected that during this period of increased conflict and frustrated opportunities some adolescents will turn to delinquent activities as a means of discharging such energies.

Books and magazines and motion pictures and TV shows emphasizing sex and violence, when not balanced by moral and religious education and an integrated family life, are powerfully exciting causes of delinquent activities. Several frequent modes of such activities may be distinguished. Truancy is a form of withdrawal from reality in order to avoid subjectively unpleasant tasks in the classroom. It is one of the most common delinquent activities. Misbehaving at home and school and offenses against others and society are other typical forms of adolescent delinquency. For some adolescents, however, conflicts and the resulting frustrations can serve as valuable assets for the building of ego strength and character nobility, and for advancement of discriminative

power and personal judgment. This frequently happens when the adolescent is supported by influences emanating from a good home.

Cheating and stealing at home and at school, destruction of property, association with "rough gangs" and a tendency to get involved in fights are some typical forms of delinquent behavior resulting from frustration and tension. In the school situation, one may refuse to adjust himself to the regulations of a teacher and may insist on doing what he pleases. In many instances, adolescents steal articles which they cannot use. The stealing is frequently directed against persons whom they dislike yet against whom they hesitate to manifest overt aggression because of a fear of punishment. When control against aggressive impulses is inadequate, cruelty and sex offenses may come into prominence.

SEARCH FOR ONESELF

In many ways, his limited capacity to draw upon his own resources, to reason for himself, and to act upon his own decisions is substantially amplified by the adolescent's development toward optimum levels of functioning. Adolescent advances in self-discovery are marked by three interrelated steps: (1) search for a human model, (2) choice of principles and ideals, and (3) formulation of a philosophy of life based on a value system. A favorable and mature understanding of oneself can be achieved through modeling one's energies and dynamics after a more mature and well-structured personality. It cannot be assumed that all youths necessarily pick out good models. Much depends on their drives, needs, and goals, on their environmental circumstances and socioeconomic levels. To a large degree, this is a subconscious process.

In respect to social attraction and identification, the stage of puberty is a somewhat disoriented period in adolescent life. The personality structure of the child, including its self-identification, is about to be lost. The emergence of a new structure takes time. In order to bring himself out of this confusion and the difficulties arising from considering what to do and not to do, how to achieve something and whether it must be achieved, the adolescent's attention unconsciously becomes directed toward others, compeers and older persons, who appear to embody some or most of his sensed or partially assimilated values and ideals. The finding of such a person is accompanied by a partial following of the example set by him. Some identification with his attitudes, views, and behavior occurs, and a link toward the stabilization of motivation is then established. Any deep identification with another individual lays a milestone in the process of forming the adolescent personality.

Hill's findings [6] on 8,813 children in Alabama show that many older urban children select for their idols and ideals famous historical figures

and persons in the public eye: 54.7 per cent. Persons from their immediate environment—parents, teachers, and acquaintances—also rank high as a source of models: 35.1 per cent. Since considerable changes occur at the adolescent level, similar studies are necessary for the assessment of adolescent identifications.

The adolescent's self-ideals are often developed from contacts with personalities who impress him and call forth desires to be like them in some ways at least. Such personified ideals are sought after. Television and motion-picture stars compose a large source of choice for the adolescent of this generation because he usually sees them in a favorable light. Identification with others is a major factor acting for establishment of a self-ideal.

Toward the middle of adolescence, a high level of abstract and symbolic thinking is developed. It enables the teen-ager to draw many inferences and comparisons. Therefore, when he sees and admires the good conduct of some individuals, he also recognizes the ethical principles and at times the hierarchy of values behind such actions. This, of course, greatly helps him in assimilating the principles and ideals by which he wants to live. Principles and ideals, when assimilated, contribute to the process of stabilization by acting as guides toward goals and as standards for objectives identified by the goals.

The latter part of adolescence is a phase during which a philosophy of life is formulated, but which is dependent upon events and occurrences of childhood. Most adolescents construct their *Weltanschauung* on the basis of religion. The Catholic faith offers a comprehensive authoritative perspective for a healthy philosophy of life. Many Protestant denominations allow their members to choose whatever philosophy of life appeals to them through their private interpretation of the Bible. Some persons adopt an ideology in which the state and nation take the place of God and religion, while others attempt a plan of life based on various sciences and philosophies, as for example, the hedonistic philosophy whereby a person seeks pleasure as an end in itself. Owing to the conflicts, confusions, and perversions of our present culture, the process of *Weltanschauung* formation may extend well into the years of adulthood, or the *Weltanschauung* may remain unformulated altogether.

WELTANSCHAUUNG AND CHARACTER

The process of acquiring a rational design of living is also a process of character formation. Character, in psychology, refers to the general structure of ethical motivation acquired in the course of development. It is exemplified in one's adherence to a scale of values and ethical prin-

ciples. Consistency of behavior and conduct are external signs of internal character structure.

The latter part of adolescence is a major phase of character development. It is largely influenced by a person's experiential background and his direction of his own dispositions, endowments, abilities, and other resources. Experiential background includes most importantly the example, instruction, and discipline of the parents. Character has its roots embedded in early childhood experiences, in which the parents' influence is very strong. It is believed that the foundation for a person's character structure is well laid by the age of five or six years. Other influences in early childhood which affect character are conflicts encountered by the child, such as repeated failures in school which may lead to truancy, dishonesty, and contempt for authority. Lack of physical supplies, such as food and clothing, may lead the child into habits of stealing. Pleasurable and satisfying events also affect character development and usually promote desirable character traits if the pleasure is lawful and not excessive. The type of neighborhood and its mores and standards make an impression on character as the child tends to assimilate what he is exposed to.

In *Children Who Hate* [9], F. Redl and D. Wineman describe their work with children ten years of age and younger whose personality and character were warped by their social environment. These children had become so accustomed to rejection and hate that they could not love or were afraid to love. After a year or more in an atmosphere of kindness and patience, these young boys still retained much of their hostile attitudes and destructive behavior.

Important as background experiences are, their influences are modifiable by other factors, one of which is the individual's disposition. This can easily be seen in many cases of siblings or twins who are reared in the same environment and have similar family influences, yet habitually react very differently to practically identical situations. One child may become submissive when corrected by his parents; the other child may become angry and resentful. Individual dispositions would seem to account for many differences in a person's reaction pattern.

During adolescence, self-direction becomes a major influence in character development. Self-awareness and strivings for independence, combined with the realization of approaching adulthood, make the adolescent carefully weigh his behavior, endowments, and weaknesses with the present and future in mind. He searches for meanings and aims of living. He decides what kind of a person he wants to be, taking into account the ethics of his society and community, morality, religion, the wishes of his parents, and the attitudes of his friends. He attempts to use self-control and self-appraisal in cultivating the traits he desires. While

self-control can be advanced by personal efforts, self-appraisal depends largely on the estimation of others. The opinions of peers, parents, and others may greatly disturb him. Boys and girls anxiously look for the favorable appraisal of their compeers, yet they also feel exposed to the evaluating remarks of adults with whom they happen to come in contact. Reflecting the views of others, one consciously or unconsciously takes steps in self-evaluation and self-change. Personality depends much on what concept of self emerges as the years of adolescence pass.

Adolescent progress in personality formation is also related to the changes and developments of adolescent interests, especially in so far as these approach the adult level of maturity. Chapter 16 dealt extensively with the interests of the adolescent phase of life. The following chapter will attempt to define key signs indicating personal maturity at the postadolescent level.

QUESTIONS FOR REVIEW

1. What has adolescent personality development to do with (a) developments during childhood, and (b) social adjustment?
2. Define some relationships between personality and the self.
3. What are the key sources from which an adolescent assimilates values and attitudes?
4. Identify some major factors contributing to school difficulties in teaching moral values and religion.
5. What processes and activities indicate progress in self-discovery?
6. Describe a philosophy of life and its bearing on adolescent conduct.
7. Explain character and indicate some major internal and external factors molding its development.

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9. Redl, F. and D. Wineman. *Children Who Hate: The Disorganization and Breakdown of Behavior Controls*. Glencoe, Ill.: Free Press, 1951.

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- Age of Turmoil* (20 min) McGraw-Hill, 1953. Six young adolescents representing different personality types are used to illustrate emotional and social turmoil.
- Discipline During Adolescence* (16 min) McGraw-Hill, 1957. Results of too little and too much parental control are dramatized.
- Emotional Maturity* (20 min) McGraw-Hill, 1957. Dramatization of a high school boy's immature behavior and his difficulties in channeling his emotions into constructive activity.
- Facing Reality* (12 min) McGraw-Hill, 1954. Demonstrates an adolescent's use of the common defense and escape dynamisms to avoid the realities of life.
- Is This Love* (14 min) McGraw-Hill, 1958. Contrasts romances and personality traits of 2 college girls.
- Meaning of Adolescence* (16 min) McGraw-Hill, 1953. Shows major developments and related difficulties as well as means to cope with them.
- Meeting the Needs of Adolescents* (19 min) McGraw-Hill, 1953. The story of a 14-year-old boy and his 17-year-old sister indicates what parents can do to help teen-agers.
- The Teens* (26 min) National Film Board of Canada, 1957. Normal behavior of 3 adolescents is portrayed and interpreted.
- Toward Emotional Maturity* (11 min) McGraw-Hill, 1954. Decisions of an 18-year-old girl in light of her background.

SECTION

VIII

ADULTHOOD

ACHIEVING adult status was a key task of the first two decades of life. Each level of development was interpreted as a significant contribution to it. Thus, the infant, child, and adolescent years alike served as a foundation for adulthood's adequacies or shortcomings.

At the outset, adult life typically involves the acquisition of a vocation, selection of a life mate, and integration into the social and cultural structure and dynamics of the society in which the person is to function. The maintenance of the adult status is linked to the consolidation of personality structure, development of character, and further self-realization, especially as they are related to the role in life assumed by the individual. The four chapters of this section serve the purpose of presenting the psychological aspects of maturing and living through the adult years.

Achieving Adult Status

PROGRESS in mastering the developmental tasks of adolescence is a sign of advancing in maturation toward the adult level. The integration of acquired abilities and skills in a functional system is another key to responding with mature behavior. A major role, however, is played by the modes and techniques of adjustment, which one continues to acquire and perfect during the later years of adolescence. Child and adolescent experiences in their entirety represent a developmental matrix in which a reorganization of forces which determine behavior in adulthood takes place.

Without a continual willingness to learn and perform, a store of knowledge and skills cannot be established. Without sufficient incentives, learning may remain inefficient. Accomplishments without peer approval or praise may lose meaning for the adolescent himself. Stabilizing feelings of self-adequacy and self-reliance are additional ingredients necessary for a fruitful exploration of various areas of human endeavors. A maximal use of abilities and skills exists only when the individual is not disturbed by anxiety, and is capable of being realistic about his liabilities and handicaps. Any undue emphasis on liabilities and deficiencies acts as an impediment to adult maturation. The capacity and the willingness to assume adult-related activities and responsibilities are other marks of readiness to approach and enter an adult mode of life. Balancing daring aspirations with one's endowments, abilities, and assets is also a factor in promoting one's integrity and self-acceptance.

OVERCOMING IMMATURITY

The ability and the desire to respond in mature ways under varying circumstances have many facets. First, a mature response implies sur-

passing the infantile and childish levels and vicissitudes of behavior. Frequent seeking of help and privileges may be indicators of infantile helplessness. Excessive irritability and emotional outbursts as responses to stress, disappointment, or deprivation also suggest immaturity. Constantly looking for excitement, adventure, and the sensational may be a sign of puerile motivation. Extensive daydreaming and a lack of sense for reality evaluation suggest pubescent traits.

Puberticism may be seen as a level of existence which may be difficult for many youths and adults to outgrow. A pubescent level of motivation may remain deeply entrenched within the personality structure of some individuals who are entering the years of adulthood and even later.

During the postadolescent years, a person may learn to exhibit an external "façade of maturity." Internally the individual may be frequently moved by anxieties and by ambivalent feelings. He may reject facing some of his problems and use fantasy and illness as means of escape from unpleasant situations and other challenging events. Moodiness and emotional oscillations are also signs of a preadult level of living. The lack of readiness to assume one's own sexual role and the lack of those sentiments which foster deep and permanent human companionship are signs of immaturity if shown when the adolescent advances toward adult years of life.

Experimenting with various roles and relationships is a necessary workshop for the realization of one's limits and hidden strengths. Most adolescents enthusiastically enter into new relationships and assume roles offered to them. They show signs of eagerness for intellectual, emotional, and social enterprise in order to find out for themselves how they really want to live and what jobs and positions are best suited to them. Certain tendencies toward particular roles and interpersonal relationships appear to be determined by attitudes springing from the assumption of earlier roles during the years of childhood. Studies by J. H. S. Bossard [3, 4] contain some interesting material on the selection of roles in large families. A later-born child finds some roles already taken by his older siblings; for example, one of the child's brothers has the role of the "responsible," while another is good in scholastic performance, and a third is the troublemaker most of the time. An identification with any such role may have some far-reaching effects on the child's future selections of vocation and civic role and on his popularity.

Adequate development toward an adult level of functioning is often disrupted by continued ambivalence, mental conflict, and excessive use of self-defenses. Frequent use of any dynamisms in self-defense, especially under somewhat normal conditions, is an indicator of a difficulty in responding in mature ways. Such use is a barrier in the process of growing toward adult maturity. As the period of early adulthood continues,

doubts about self-adequacy subside. Suicide thoughts, if any, and ideas about "being abnormal" or "going crazy" disappear in most cases.

At the adolescent level, the foundations for maturity may be seen in the adolescent's readiness and ability to respond and perform on an adult level. Development of adult interests, readiness to assume some adult responsibilities, and the acquisition of knowledge for much later use are indicators of partial ascendance into adulthood itself.

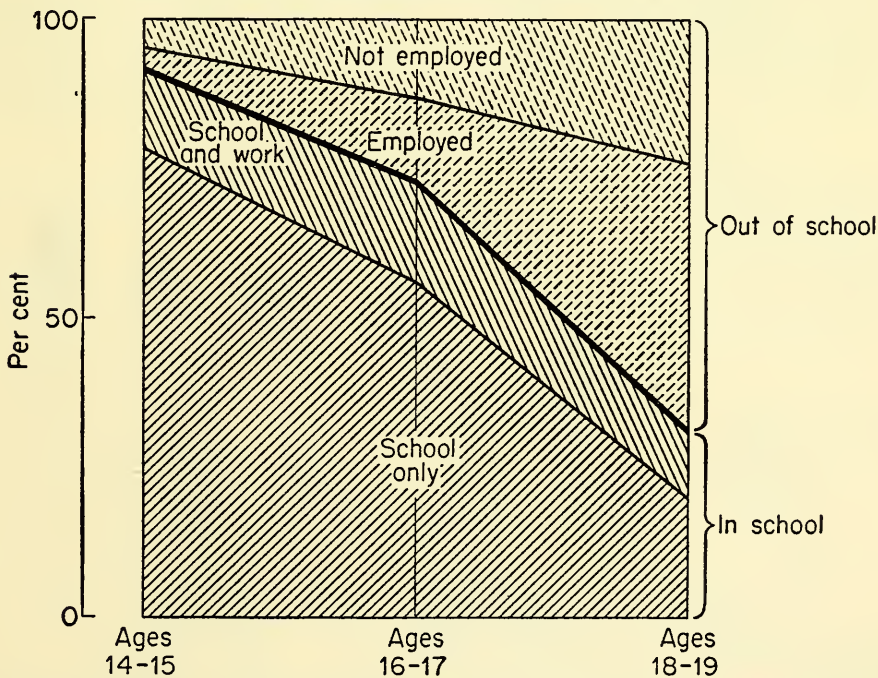
ACQUIRING A VOCATION

One of the important areas of adolescent striving toward adulthood pertains to vocational training. Today most vocational training takes longer than it did in the past, transition to a different vocation is more difficult once the training is advanced, and the disadvantages are considerable in a late change of vocation.

Vocational choice involves a *vital* decision: in many cases it will affect the individual all his life. The adolescent knows he needs a vocation. He is also aware of the fact that a vocation is a condition for the economic independence for which he is striving.

Many factors must be considered in the selection of a training program and in the choice of a future occupation. Several choices have to be made

Figure 18-1. Teen-agers, School, and Employment



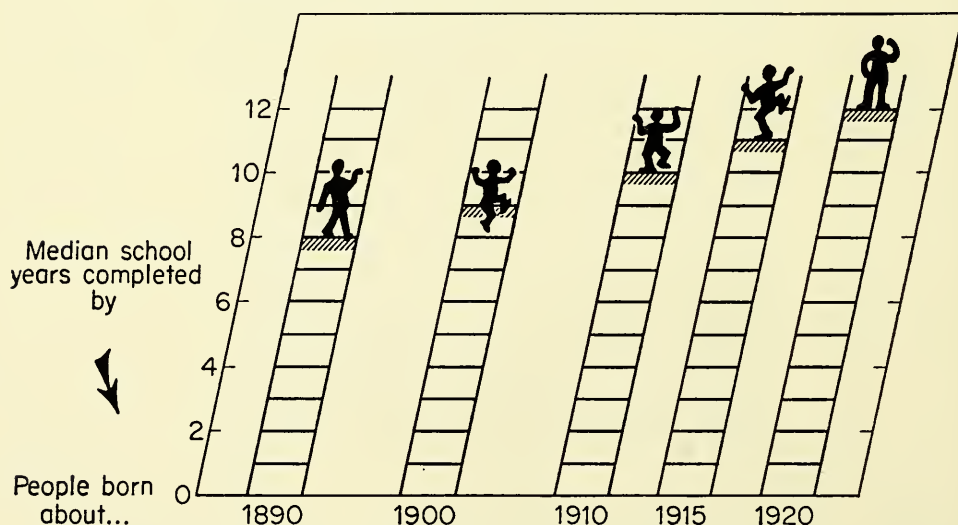
(Fact Finding Committee, Midcentury White House Conference on Children and Youth. *A Graphic Presentation of Social and Economic Facts Important in the Lives of Children and Youth*. Washington, D.C.: National Publishing Co., 1951.)

before one arrives at a definite selection. The question whether or not to continue in high school is one of the early decisions. Despite the fact that a great majority of parents—about three-fourths—urge their adolescent boys and girls to complete their high school education, approximately 50 per cent of adolescents in the United States did not complete this education in 1950. Figure 18-1 identifies the related data and points to a sharp decline of school attendance after sixteen years of age at the mid-century. Despite this fact there are signs indicating that the United States is approaching a realization of the ideal of universal education. Larger numbers of youths are going to school not only because the population is growing but also because a larger proportion of school-age children continue their education at high school and college level. Figure 18-2 depicts data on elementary and high school attendance in the past and the present. Many states have revised their laws concerning school attendance up to seventeen and eighteen years of age.

Child labor laws protect children and young adolescents against work likely to hinder well-rounded development, and increase children's chances of remaining longer in school. The Fair Labor Standards Act sets sixteen years as the minimum age for work during school hours and for occupations in manufacturing at any time. At present, most states permit working during nonschool hours.

Many adolescents who withdraw from school feel pressed to take full-time jobs. Part-time employment satisfies students who are in part supported by their parents. Withdrawal from school at times implies hesitation on the part of parents to supply an older adolescent with financial

Figure 18-2. People Are Getting More Schooling



(Facting Finding Committee. *Midcentury White House Conference on Children and Youth. A Graphic Presentation of Social and Economic Facts Important in the Lives of Children and Youth.* Washington, D.C.: National Publishing Co., 1951.)

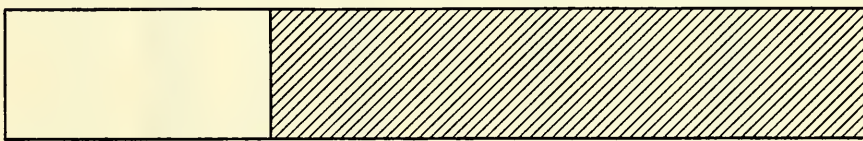
means of existence. Availability of jobs is of crucial importance and will greatly determine whether the individual can find the job suited to him and hence make a satisfactory adjustment to his occupational life. The choice of jobs is further limited by an incomplete education or a lack of occupational training in a trade school. The inaccessibility of trade schools is also an important factor in acquiring skills sought by industry.

Over two-thirds of employment service counseling is administered to youths under twenty who face vocational problems. Applicants usually receive more than one interview with a counselor and one or more aptitude tests. Figure 18-3 indicates that in 1950 these services were given in approximately seventeen hundred local centers of the United States Employment Service to a monthly average of 45,000 adolescents. The complexity of vocational choice is reflected in approximately 100,000 distinct occupational designations in the United States. There is apt to be some trial and error unless a person has formed definite vocational goals based on a realistic appraisal of self and of the requirements of a given occupation. Limited knowledge of occupational requirements adds stress to the vocational aspirations of a majority of adolescents.

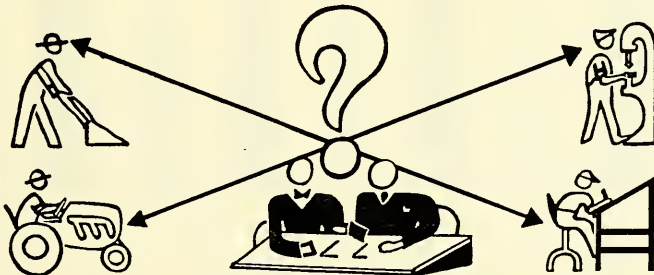
As the percentage of high schools having vocational guidance services steadily increases, the possibility of a satisfactory choice in terms of one's capacity also improves. This is chiefly due to vocational aptitude testing. An adolescent is likely to put much value on such testing results since his vocational interests are often confused. E. K. Strong, Jr., [8] found that only after the age of twenty-five years do vocational interests become

Figure 18-3. Counseling Youth

Among 65,000 persons counseled each month....



45,000 are youths with vocational problems



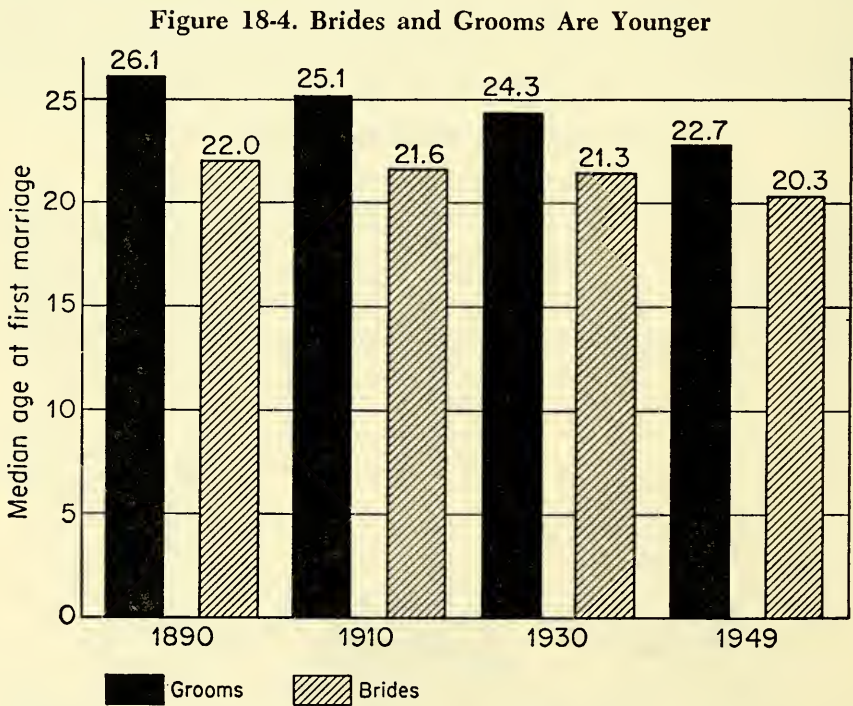
(Fact Finding Committee. Midcentury White House Conference on Children and Youth. *A Graphic Presentation of Social and Economic Facts Important in the Lives of Children and Youth*. Washington, D.C.: National Publishing Co., 1951.)

well crystallized. It is unfortunate that a majority of people have to make a definite vocational choice earlier than this age. Vocational training is often completed early in this phase of development. Within the age limits of early adulthood, most individuals, frequently after several trials and changes, settle down and continue to work in the same occupation.

SELECTING A MATE

In terms of time, vocational employment is often accompanied by selection of a spouse, and this, in turn, by the establishment of a home. Despite the fact that these activities involve difficulties and problems, they all contribute substantially to the establishment of full-fledged adult status and adjustment. Figure 18-4 indicates that the average age for marriage is decreasing in the United States; in 1955 the age stood at about twenty. The usual age difference between men and women is narrowing down to approximately two years [10].

In late adolescence or early adulthood, strong and lasting identifications with a peer member of the other sex occur. Such attachments are frequently mutual and offer deep ego gratifications. They also promote the feelings of adequacy and security of most individuals. The percentage of



(Fact Finding Committee, Midcentury White House Conference on Children and Youth. *A Graphic Presentation of Social and Economic Facts Important in the Lives of Children and Youth*. Washington, D.C.: National Publishing Co., 1951.)

companionships and romances progressing to mutual love and marriage rises steadily and reaches its peak at an early part of this phase of maturation. While many persons in the early twenties are sufficiently mature to assume marital and parental responsibilities, a significant number of individuals are apparently not as yet ready for marital life. Quite a few have been damaged in their earlier development by the attitudes of their parents. The selection of an incompatible partner often indicates this. Personal security demands and parental and popular pressures may move one forcefully toward contemplating marriage. During the later part of early adulthood, pressures usually intensify, especially for girls. Thus, the voluntary acceptance of this new role may be questioned in some cases.

A paradox appears when the following two factors are brought into consideration. The time needed to complete adolescent growth and maturation increases with the elevation of the cultural level and the rising standard of living. In present American society, completion of puberal changes does not imply adult competence as it does in most primitive societies. Within the bounds of the twentieth century, the span of adolescence has increased with each generation. The law of readiness implies delay of the age of marriage with each increase in the age of maturity. Yet each generation gets married at an earlier age. Apparently many get married before they are psychologically ready to do this successfully. Marriages are often preceded by too short a period of courtship. This increases the chances of incompatibility in the need and trait structure of the individuals involved. All these factors are contributing causes of discord and separation. Statistics indicate the percentage of separations to be actually increasing from generation to generation.

Table 18-1
Estimated Divorce Rates in the United States

<i>Year</i>	<i>Number per 1,000 marriages</i>
1900	79
1910	88
1920	134
1930	174
1940	165
1950	231
1955	246

SOURCE: *Vital Statistics of the United States: 1955*. Vol. I, table Q, p. 63. 1957.

Statistical findings indicate that divorces are more frequent in states with lenient divorce laws, among city families, especially those marked

by lesser education, in the laboring class, and in cases of teen-age and interfaith marriages. Table 18-1 shows that divorces per 1,000 marriages stepped up from 79 in 1900 to 246 in 1955. Divorces are frequent within the first few years of marriage. Freedom for entering the marriage relationship and freedom to give it up are apparently two related key factors promoting family instability and consequent deprivation for an extensive percentage of children and adolescents of adequate familial ties.

Frustrations in the expectations of marital happiness may occur on psychological grounds. The dominance relationship may be one of them: both partners may have strong tendencies to dominate each other. Then, congruity is difficult to establish. An example of incongruity may be seen in intense strivings for independence on the part of both partners. Lack of similarity in interests and activities may present an obstacle to the mutual sharing of marital life.

PREREQUISITES FOR A SUCCESSFUL MARRIAGE

From Georg Simmel's theoretical assumptions [7] to present research by sociologists and psychologists, race and religion have usually been seen as the most decisive factors segregating males and females into acceptable and unacceptable categories for courtship and prospective marriage. Experience gathered from thousands of families indicates a difficulty in sharing married life without sharing a basic identity in appearance and in faith.

Similarities in age, socioeconomic background, endowments, and acquired abilities are likely to favor the permanency of a marital relationship. These factors are helpful in promoting mutual enjoyment of the same activities, especially if love above the level of infatuation or mere romance pervades the relationship.

A congruity of the specialized personality need systems will assist in deepening this relationship beyond the level of mere companionship. For example, persons with high assertiveness tend to be congruous with persons having receptive traits as dominant characteristics of their personality. Persons with strong strivings toward excessive independence may better fit the needs of those preferring dependence and submission than of those with similar strivings. R. F. Winch [11, pp. 96 ff., 101 ff.] originates and presents supportive data for the hypothesis of complementary rather than similar need patterns promoting marital adjustment. Reciprocity of needs enables the fullest possible personality development within the family structure. Nevertheless, in terms of basic interests, abilities, and values, it appears that similarity of partners is a major force contributing to marital stability.

Success in selection also depends on the degree of similarity on the part

of the partner to one's concept of the ideal mate. The image of the cross-parent plays a role in building such a concept. Any appreciated qualities of the mother deeply impress her son and act subconsciously as prerequisites for the ideal mate. Significant members of the other sex also contribute to shaping contours of the concept. As the "dream model" tends to stabilize during adolescence, it begins to act as a factor in the boy-girl relationships pertaining to mate selection.

The selection of a mate is greatly influenced by the individual's popularity among members of the other sex and by his attitudes and ideals concerning appearance and personality of an ideal life partner. It has been found that men rank appearance, contiguity of interests, and cheerfulness much higher than women do; to women, intellectual abilities, educational status, and social ease are of prime importance. Necessarily the intensity of romantic love tends to outrank all other considerations, especially on the part of young persons contemplating marriage.

Marriage represents a major transition which challenges personal maturity and adequacy. Personal problems, if present, readily produce family problems. Growing obligations, an incongruity of cardinal personality traits, lack of preparation, and sexual incompatibility are other obstacles to marital adjustment. Frictions in the parental family during childhood, heightened self-defensiveness, and present financial difficulties may add much to discord and unhappiness. If there is a psychological similarity and congruity, however, marriage may foster the personal adjustment of both partners. Similarity in background, age, religion, abilities, and interests are other significant factors in the over-all adaptation to the marriage relationship and in later growth of personality within the matrix of marital life.

Ernest W. Burgess and L. S. Cottrell's study [5, pp. 354-361] of 526 couples in the Chicago area, with an average age of 26.1 and 23.4 for husbands and wives respectively, points up the greater significance of the husbands' background than the wives' for adjustment in marriage. Apparently wives, on the average, make much more adaptation to their husbands than husbands make to them. The majority of wives attempt to achieve their aims in subtle and indirect ways, while the husbands often act directly and impose their expectations and demands on their wives.

This and L. M. Terman's investigation [9] of 792 husbands and wives in the Los Angeles and San Francisco areas, with a mean age of 38.8 and 35.8 for husbands and wives respectively, reflect the important role of the earlier environment of family affection upon the pattern of adjustment of young adults to married status:

1. Happy marriages of parents are positively related to happiness in the marriage relationships of their children.

2. Close emotional ties with cross-parents and absence of marked conflicts with both parents are also positively related to the person's adjustment in marriage. The child's response patterns pertaining to affectional relationships are largely reproduced in adult associations, and deeply affect the marital relationship.

NEED OF MARITAL COUNSELING

A marriage counselor usually realizes that marital conflicts spring either from severe incompatibilities or from personal problems of one or both parties. Lack of maturity is a frequent personal inadequacy. A husband, for example, may continue to be attracted by other women. Jealousy reactions are called forth, and may fortify themselves as an obstacle to a mutual understanding. Perfectionistic strivings on the part of the husband may be expressed in remarks indicative of dissatisfaction with the wife's actions, or an occasional criticism of her methods of doing routine tasks. Frequently, these may lead to more disruptive arguments and general discord within the budding family structure. Conflict sometimes may be related to previous vocational or other aspirations of the wife, who feels disappointed with substituting marriage for them. The wife's financial demands and pressure on the husband to achieve a better-paid position are other frequent factors. Generally several undesirable factors or traits work together in disrupting the harmony or in making it impossible to establish. Counseling may aid much in familial integration.

Higher education and socioeconomic class apparently favor extensive social participation and adaptability to others, in marriage relationships as elsewhere. Although sexual and economic factors are often a source of family friction, they are primarily symptomatic of deeper causes of marital discord. General lack of preparation and personality traits, such as pessimism, a critical attitude, dominating behavior, and neurotic tendencies, contribute to family dissension. The belief in romantic love with the "one and only" tends to produce disappointment and frustration as well. The so-called "sexual incompatibility" is now usually recognized as symptomatic rather than etiological in marital discord.

SOCIOCULTURAL INTEGRATION

The pattern of adult society and its way of life may or may not appeal to an individual in his teens or even in his twenties. Some individuals have a strong wish to continue living within the style set by adolescent peers despite the fact that in age they have reached adulthood. They may continually express criticism toward adult direction of societal and cultural affairs. They may remain engrossed in some typically adoles-

cent activities and in other ways indicate their opposition to what is conventional. Contempt of authority may be frequent.

The great majority of young adults, however, appear to have little difficulty in accepting societal and cultural norms and act in accordance with the expectations based on these guides. But in many respects cultural norms are in a state of flux, so that the need of self-reliance is great, and many postadolescents experience anxiety in acting on their own judgment. Reliance on support from other persons is not readily outgrown.

INFLUENCES ON THE MATURATIONAL STATUS

There are many factors which in countless ways affect the adolescent and young adult in terms of his status with his peers and other individuals.

Physique, in terms of its comparative measures, is one of the major influences. While children of the same age do not differ conspicuously in terms of their height, adolescents may differ greatly in height and in many other quantitative aspects. To begin with, some individuals, girls as well as boys, may have puberal transformations at an earlier age than their age mates. A typical eighth-grade class will consist of many adolescent girls, yet some girls may lag in development and only be entering the prepuberal phase of accelerated growth. There may be several postpuberal boys in the class, while most of the boys are still children and conspicuously small by comparison. Such a situation is confusing to all of them since their strength, interests, and motor coordination will now differ markedly. Quite a few of them will have blemishes and skin eruptions; others may become acutely aware of their voice changes, especially when these changes are accompanied by frequent breaks. Embarrassments and tensions may mount high when their attempts at self-assertion fail more frequently than before. Some may be upset by unforeseen sexual phenomena. Doubts about self-adequacy emerge more frequently as their social acceptance decreases. The situation becomes more grave for certain individuals as they enter high school. They may have unexpected difficulties in making new friends. Physical differences are important in the selection of friends, like attracting like.

The situation in school applies in some ways at home and in the neighborhood. Although the adolescent-parent relationships may be very good for several years, conflicts quite frequently result as soon as the adolescent strivings for independence are magnified. Young teen-agers often want concessions and privileges pertaining to adult status. They may gain some limited objectives, but their parents will not consent to every wish and demand. Awkwardness in motion seems to go hand in hand with social awkwardness. Intrafamily frictions often develop as the

adolescent girl desires to become womanly by the use of cosmetics and women's dress and the adolescent boy tries to show his manliness by attempting to smoke and drink. Selection of friends, late evening social life, money, and the use of the family car are frequent points of a teen-ager's conflict with his parents. The atmosphere of the home, its educational and socioeconomic level, and its morale all have a major bearing on the total family relationships.

Surveying various districts of any large or medium-sized city impresses one by its variety, beginning with slum areas and ending with extremely exclusive neighborhoods. Families with similar income and status tend to live near each other. This then creates certain general attitudes and an atmosphere related to the class of people in the neighborhood. The child and adolescent may have many advantages in some districts and many deprivations in others. Lack of recreational facilities may be one disadvantage, presence of delinquent models another. With his as yet limited resources, the teen-ager must cope with these disadvantages. His status is affected and modified by these cultural influences, plus the personal factor, i.e., whether he is a master of his own driving forces or is a mere responder to the outside influences and situations. Each adolescent is probably a mixture of both, yet one of them may prevail.

In the modern nexus of cultural and scientific advance, excessive reliance of the maturing person on science is not infrequent. Science is often seen as *the* way of knowing. Partial or complete exclusion of other key ways of knowing, such as religion, philosophy, and the arts, may follow. In such a case, a significant detraction from any wholesome evaluation of experience and relationships to others occurs. Lack of perspective results, which, in turn, promotes compartmentalization and denial of some dimensions of reality. As a result, personality development remains incomplete in its structural aspects and a lack of maturity will mark many of its responses.

Personality growth usually continues throughout early adulthood, and, in some respects, it may progress to the end of life. If ordinary developments did take place and childhood or puberal conflicts were resolved, one may become increasingly self-directive and more objective with the passage of time. With many abilities and skills acquired, one continues to be in a position to select new goals challenging him as a person. Related activities result in added gratifications, which, in turn, enhance his ego strength and security.

It is advantageous for the maturing person to capitalize on the preceding phases of development. The smile of infancy, attention to others, autonomy and experimentation of the preschool years, affiliative trends and vivid emotions of childhood, and the zest for adventure and idealism of adolescence may be incorporated into his personality picture. During

the years of adulthood, much should be added to it. Self-application for one's chosen goals, continuity of effort, sensitivity to the needs of others, and foresightful planning all point to an adult design of living. Adult self-reliance will be related to acquisitions from religion, philosophy, social sciences, and the arts. It will be supplemented by information and counsel gained from other adults of personal stature or professional efficiency.

GUIDING THE MATURING PERSON

Few would argue against a need of adolescent guidance, yet not many would agree on its exact methodology. Since the adolescent is no longer a child, parental and educational demands should be different from those on a child. Several ideas may be kept in mind in attempting to clarify an adolescent's need for guidance. First, an adolescent is in a state of rapid development. This development is pervasive and encompasses many factors and dimensions of his personality. Whenever a factor is changed and reshaped, any noticeable influence can deform it more readily than when the same factor is stable after an adolescent has acquired an advanced level of individuality and personality organization. Some molding influences may therefore be incongruous with what has been developed up to this age. One's past experiences and controls must be respected in addition to his type of personality. The maturing person usually needs many good influences to support him in his strivings for a higher level of self-realization. He needs much information in order to acquire new knowledge and to form new perspectives and vistas and thus to contribute to his resourcefulness.

Since an adolescent's feelings of adequacy are often exposed to threats, he may need particular consideration before any advice is given. *Audi alteram partem* (listen to the other side) is a guide for fairness to the adolescent. Authoritative control is usually resisted by the adolescent because it is usually identified as a threat to self-independence. On the other hand, the democratic method may not be particularly good for the adolescent because he is often not ready for any compromise.

Modified *informed permissiveness* seems to be the best approach. Adolescents and young adults alike often need information, especially in the complex situations of modern life. Since one's desire to learn often runs high, his attention is usually satisfactory or good and he will benefit from the information about alternatives in a permissive atmosphere. A deep positive attitude toward granting freedom of expression and choice usually appeals to the adolescent. Permissiveness is not necessarily indulgence, and so the approval of each alternative action is not implied. Permissiveness is modified in terms of the adolescent's needs and tenden-

cies about which the guidance worker, parent, teacher, counselor, or camp leader must previously secure competent information from reliable informed sources.

Illustrative materials and underlying principles from *Removing Blocks to Mental Health in School* [6, situation 17] will be used here to deal with some specific problems of adolescent guidance.

Mary was up against a tough problem in making out her study program for the last year of junior high school. She had an expectation of going to college, and if she was going to take algebra she had to take it in the ninth grade since it was not offered in senior high school. Mathematics had always been Mary's stumbling block and had caused her so many emotional upsets in junior high school that her parents thought it might be better to postpone algebra for a year. This was impossible if Mary was to pursue the college preparatory course. What should the school advise? Should Mary run the risk of further emotional disturbance and take algebra in the only grade where it was offered or should she skip it and run the risk of not getting the mathematics required for college entrance, with the anxieties thereby incurred? This is a typical educational problem. How many students are not quite ready for a specific course when they are in the grade in which it is most conveniently scheduled?

Should not some attention have been given before the condition developed to the point of "so many emotional upsets in junior high school"? Was the school aware of these upsets? Is this not the type of a situation in which a school psychologist, if available, could have been of assistance? With or without such service, might a case-study approach to Mary's problems, if applied earlier in their development, have thrown any light upon the underlying reasons for Mary's upsets, and have indicated possible changes in her school program to ease the pressures Mary felt?

Another educational problem can be cited.

Sally had never been able to cope successfully with her high school courses. She had, however, remained in school long enough to be considered eligible for graduation with a diploma. She had been given minimum passing marks in most subjects because her teachers realized she was doing the best she could. Sally got along well with people and appeared to be happy. She seemed undisturbed by her low level of skill in typing, her inability to make an acceptable transcript of stenographic notes, and her vagueness about the content of other courses. When she applied for a job, she was accepted as a high school graduate and assigned to work which she was completely unable to do. As she was discharged from one job after another, she became more and more resentful of other girls' successes, less and less easy to get along with, more suspicious of her fellow workers, and more vaguely anxious about herself. How will Sally end up—as a neurotic? as a shrewish wife and a nagging mother? At the same time, her employers wonder what is happening to the schools: "How can the schools graduate pupils like this?"

A lack of confidence in the schools develops among certain businessmen in the community when they encounter graduates who fail to measure up to the normal standards.

How can the school solve the dilemma of giving pupils like Sally recognition for reasonable effort and regular attendance without creating an unrealistic self-confidence in their abilities and giving employers a false understanding of what the credentials mean?

This quoted registration procedure contributed to the following problem.

" . . . and so the pupil and parent should study the attached 'List of High School Offerings' and choose the curriculum which the pupil is to pursue. The choice should be listed on the 'Curriculum Choice Blank' and returned to the vice-principal with the parent's signature indicating approval."

Mrs. Smith had no difficulty in making a choice for Lisa. She had always admired her own sister's career as a nurse and wanted Lisa to follow in the same path. Lisa wished to please her mother and so, as suggested in the material sent home from school, she chose the "straight college entrance course" as preparation for her nursing career.

Lisa worked hard and made a fair record the first term in high school, even though her science and algebra required tremendous effort which resulted in memorization rather than real understanding. She missed the art classes in which she excelled in seventh and eighth grades but tried to find a little time at home in which to sketch fashions and make "outfits" for paper dolls. How far will Lisa go before she discovers that she will not likely succeed in nursing?

These cases illustrate a few of the many problems involved in counseling and guiding adolescents. Since many steps of preparation for adulthood are being taken at this period of development, it is most important that proper guidance be available. The maturing person should be encouraged to come out of himself and to accept greater responsibility in exercising his will for his own advantage and that of the community.

QUESTIONS FOR REVIEW

1. What are the adolescent characteristics indicating readiness to enter the level of adulthood?
2. Why should an adolescent experiment with various roles?
3. Why do ambivalence and self-defenses often indicate a lack of age-related maturity?
4. What is the role played by a vocational preparation during adolescence?
5. List and explain some major factors operating in vocational choice.
6. Enumerate several factors contributing to marital happiness. Analyze one of them.
7. What are some major influences affecting adolescent status? Explain some implications of one of them.

8. Why does an adolescent need increased permissiveness of his parents?
9. What are some fallacies in adolescent guidance on the part of (a) parents, (b) educators?
10. What are some of the modern means profitable, if applied, in guiding the maturing person?
11. Explain how an adolescent develops self-direction from within.

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The Concept and Criteria of Maturity

THE “MIRACLE” of structural growth and functional maturation continues for almost two decades before the human individual begins to approach sectorial and global maturity. As we have seen in Chapters 5 through 17, the total process of development is marked by many aspects, factors, phases, steps, and particular tasks. Maturation, as was pointed out in Chapter 2, refers to the emergence and particularly the increase of functional abilities and mental powers. Beyond this, it implies age- and phase-related relationships and behavior indicating a relative freedom from anxiety and restraints that spring from conflicting and emotionally charged experiences of previous levels of life.

In growing up, the organism and personality reach and begin to operate upon successively advanced levels of maturity. It is good to bear in mind that an adult may act at a top level of unfolded abilities only when the situation calls for it, for example, in a political debate among civic leaders. When the same adult finds himself among children, he may act in a childish manner. The teacher often has to use a low level of self-expression to make himself understood or to initiate activities based on age-group interests. Responding to a situational demand, he merely faces reality and acts appropriately; this naturally does not mean he regresses into immature forms of behavior.

Usually children and adolescents are striving for maturity as this is modeled and illustrated by their parents and other adults. A young girl may wear lipstick, speak about marriage, and in many other little ways indicate her desire to become a mature person. A young boy may try to step into his father’s shoes and enact “Father” by fitting himself into

some aspects of the parental role or by showing preference for adult interests and activities.

The three major effects of maturation are (1) expanded ability in learning, (2) higher efficiency of performance, and (3) recognition of meaning and value. The mature person is, then, characterized by his readiness to utilize his reservoir of abilities and skills as means of desired self-expression and accomplishment. Maturity, ultimately, refers to the adequacy and completeness of integration; it is a phase at which human capacities and personality traits are not merely developed but functionally united as well.

STUDIES ON MATURITY

A survey of psychological and related literature indicates that the process of human maturation is a typical subject matter of developmental psychology. Furthermore, it is analyzed in volumes on personality, mental hygiene, and adolescent psychology. Maturational orientation seems to be adequately presented in the works of E. Aeppli [1], A. L. Baldwin [8], and, especially, P. Lersch [5].

Lersch develops a complex developmental and organizational structure of the human being. Fundamentally this structure is characterized by two interpenetrating operational levels, conceptualized as "endothymic ground" and the "I"-related or personal superstructure. The former is derived from the Greek *endon*, meaning within or internal, and *thymos*, meaning emotionality as a frame of mental experience. Endothymic processes and promptings make individual life deep, resourceful, and creative. The "I"-related function refers primarily to self-control status in the light of reason and volition. Thus it performs the function of marshaling and directing endothymically elicited energies into the pursuit of personal aspirations and goals.

G. W. Allport [2] devotes a chapter to the mature personality. He outlines maturity in terms of a variety of autonomous interests, self-objectification, and a unifying philosophy of life. L. P. Thorpe and W. W. Cruze [34, p. 613] identify maturity as "a goal toward which most children and adolescents constantly strive." They identify the mature person as "one who has attained physical maturity and who, at the same time, has developed certain attitudes, interests, and ambitions which differ considerably from those characteristic of childhood and adolescence [34, p. 594]." Evidence of maturity is seen in sectorial maturation of various developmental aspects [34, pp. 604-612]. Generally, most writers on maturity [4, 19, 26] present data on physical, sexual, emotional, and social maturation, but fail to integrate the data in terms of personality so as to arrive at their principal meaning to the individual or to see fully

their societal significance. In recognizing the great need for a concept of psychological maturity, H. A. Overstreet [26] notes the past contributions have been leading to this "master concept of our time," which is "central to our whole enterprise of living." It remains, however, an open-end task for future research.

It is noteworthy that recently there have been several large volumes published on both personality and developmental psychology which basically avoided this challenging subject. Examples of such studies include those by G. Murphy [23, 24], R. Stagner [32], C. M. Harsh and H. G. Schrickel [18], D. C. McClelland [22], S. L. Pressey and R. G. Kuhlen [27], and L. P. Thorpe and A. M. Schmuller [35].

TESTING MATURITY

Setting many qualified maturities apart and designing measures to appraise them separately is impractical at the present time. It will produce at best questionable results unless it is supplemented by a synthetic correlation of the data. Indexes of maturity may be attained by means of laboratory evaluation of various bodily systems. For instance, X-ray records may indicate the developmental stage of ossification. Medical examination, including laboratory analysis of gonadotrophic hormones, may produce indexes of sexual maturity. Moreover, psychometric tests, e.g., intelligence tests, will show the level at which certain mental abilities function.

The Vineland Social Maturity Scale [11] is another typical example of the sectorial approach. The Vineland Social Maturity Scale is constructed on the model of the Stanford-Binet and is designed to appraise social adequacy. The items are grouped into age levels—from early infancy to the age of thirty years—representing progressive personal-social maturation and adjustment in terms of self-help, self-direction, locomotion, occupation, communication, and socialization. Answers by the subject or one who knows him well are converted into an age-related interpretation.

When one scans A. Gesell's normative scale of maturation from one-year-oldness to fifteen- and sixteen-year-oldness [15–17], one cannot fail to observe the increasing complexity of understanding and behavior, of self and interpersonal relationships. According to Gesell, developmental diagnosis "is a matching of observations and of norms. When the matching is guided by ample clinical experience, it has the validity of true measurement [14, p. 8]." Following his directions the examiner attains a Developmental Quotient, or DQ [14, pp. 111–117]. This quotient is based on the ratio between maturity of motor, adaptive, language, and personal-social behavior and the chronological age of the subject. The four behavior

aspects are defined and tested on Gesell's developmental chart [13]. The Buhler and Hetzer tests [9] use a similar approach in the appraisal of the early developmental status of behavioral and mental maturation. Multidimensional evaluations of mental and personality factors may also come from the application of projective techniques, especially if the Rorschach method, the Thematic Apperception Test, or the more complex drawing techniques are used by experts in projective psychology.

THE CRITERIA OF MATURITY

Another approach in appraising the level of maturity is offered by means of the global criteria of maturity, more hypothetical yet sufficiently useful for the purpose of practical evaluation.

Differential responsiveness. Intellectual development and, in particular, various avenues of learning enable the child and the adolescent to expand and improve their understanding of the many realities of life and their dimensions, including their relationships. The child's early forms of exploration and his subsequent modes of questioning and reading are important means for his acquisition of knowledge. The variety of experiences to which the growing person is exposed contributes substantially to the extension of familiarity with the many details of his environmental matrix. A child may discover that certain types of antisocial behavior, such as lack of sharing or attempts to dominate, lead to unpopularity with his playmates. As a result, the child may learn to control such aspects of behavior for the sake of preserving friendships. He may deliberately test reactions of others to various situations, thereby employing a form of experimental procedure and reasoning. Insatiable desire to gain knowledge and to acquire a variety of skills, supplemented by formal education, serves as a motive to increase and refine a person's judgment and discriminating abilities, enabling the individual to give a fluent verbal description of a concept. While many individuals reach a very elevated level of discrimination, many others remain at various lower levels. Therefore, the level of discrimination serves well as a criterion of maturity. A vocabulary test with words having many meanings and connotations, including the abstract and symbolic, may be used as a direct measure of differential responsiveness. The relationship between popular, or usual, and original, or unusual, responses on the Rorschach may also serve the same purpose.

Lack of differential responsiveness on the part of youths and adults is frequently indicated by certain popular misconceptions, such as those of the identical similarity of doctor and physician, teacher and instructor. For a certain student, anyone who lectures may be a "professor" or anyone of the faculty may be unqualifiably referred to as "Mr." Similarly,

any clergyman may just be "Father." All musical performances may be identified as merely melodies or songs, and all female dancers as ballerinas.

Facing reality in all of its aspects, anticipation and prediction of future action based on past experiences and experiments cannot reach an adequate level without progress in responding specifically to various situations. To illustrate this point, let us suppose a small child was pushed down by a young boy. If the child does not perceive this incident as a specific situation, he may tend to expect similar aggressive acts by other boys, thus exhibiting a lack of differential response. Progressive improvement of sensitivity and refinement of apperceptual and conceptual interpretation constitute a *sine qua non* in such a process. Accumulation of a variety of experience and knowledge represents a capital gain for feelings of adequacy and self-reliance. A mature response in various situations depends on previous experience and the range of one's information pertaining to each situation.

Interdependence. Gaining in autonomy and independence from significant persons in an individual's life is a kind of "psychosocial weaning."

Late infancy and preadolescence are characteristic in this respect. At about the two-year level a new attitude becomes dominant which is marked by excessive resistance to parental control and suggestion, stubbornness, and attempts at contrary behavior. The infant begins to feel he has a mind and will of his own and starts to exercise them. On the other hand the puberal adolescent transfers his emotional affiliation from parents to his compeers. This gain of independence is a major sign of maturation, yet one may remain fully dependent on a clique or his "best friend" and feel lost when separated. In approaching maturity, however, the adolescent must break away from his identification and severe dependence on the compeer group in particular and "compeer culture" in general in order to integrate himself in adult society and culture as a self-reliant individual.

In the years of early adulthood, a person will not reach a satisfactory level of autonomy if, for example, he as a husband is now dominated by his wife or children, or if she as a wife is largely subjected to her husband's influences. Thus, a mere transference of dependence cannot be an indicator of maturity. Viewing this matter from another angle, complete independence can only be attained as a form of extreme autocracy or withdrawal from reality. In order to reach a high level of maturity, a balance between dependence and independence must be established. Hence, a gradual motion from the receptive dependence of infancy and childhood to the creative interdependence of the adult stage, and ultimate reliance on a will higher than one's own, one's parents', or one's compeers'—namely, on the will of the Creator of man—points to the true

maturity. Continual interdependence is possible only through the ability to love and direct this all-penetrating emotion in various degrees to various values, individuals, and objects. Marriage, for example, requires an interdependence of the partners through love. If this love cools, one or both partners depend less upon the other, and they become more independent. The lack of Christian love between employer and employee and also between nations exemplifies the uncertainty of interdependence resulting from an absence of charity. Unselfish love is the cause and effect of true maturity. Love develops maturity and maturity develops love. An experienced present-day psychiatrist has stated, "The more love is the driving factor in life, the more integrated the personality will be."

Participating activity. Without personal and active engagement, little can be performed or learned. Much passivity, spectatorship, and "letting others do it" restrict self-initiative and the use of energies which, if not utilized, lead to physiological and mental tension. Experience with children shows that they frequently enjoy being challenged and usually work at the top level of their ability, while adolescents and adults often refuse to respond to many such opportunities. Activity that challenges major motor and mental abilities should become a daily engagement, producing enjoyment and fun. Self-gratifications are impossible without creative participation in various spheres of activity. A satisfactory self-knowledge and active engagement of one's abilities and potentialities helps one to mold oneself into a human model related to one's individual nature.

Foresightful application of knowledge and experience. In the process of formal or private education, self-examination should be frequent so as to improve discrimination in terms of what is worth knowing and how this knowledge is applicable. To foster broadmindedness, the individual needs to study alternatives in order to expand his perspectives and vistas in an over-all evaluation of various implications and possible consequences. Overviews or summary evaluations preceding important decisions are likely to enable one to perceive danger signs relative to oneself and others, and may considerably improve the predictability of events. This, in turn, will facilitate making better choices and acting on the basis of long-range goals, rather than relying on short-term advantages or satisfactions.

Communication of experience. Development of the ability to verbalize and satisfactorily relate experiences, especially those which are emotional in character, provides an additional predisposition to personal adequacy and adjustment. Apparently many adult individuals continue to have difficulties in conceptualizing and communicating emotional aspects of their personal experiences. This is a frequent observation of psychotherapists. Hence, as the individual grows up and matures, he has to

make progress in vocabulary, diction, and in effective interpersonal communication, and he must be able to establish proper relationships which will offer frequent and satisfactory opportunities for this kind of self-expression. It is a task of the adult to advance to a more abstract and conceptual level of communication.

Sensitivity to the needs of others. Infants and children are sensitive to their own needs and interests. Their behavior forcefully indicates their presence or absence. A young child is likely to cry excessively when he loses either an enjoyable person or object. Yet the needs or interests of their siblings or parents are readily disregarded, if felt at all. A child takes away a new toy given to his sibling and indicates little awareness of his cry. An adult need has to be presented in a particular way in order to make it understood by a child. When the mother is being examined by a physician whom the child recognizes as a doctor, his concern grows. It may be interpreted that the fear elicited grows less on a basis of identification with the mother and more from an expectation by the infant that he will be examined thereafter. Sensitivity to the needs of others gradually develops during childhood but does not reach any depth before adolescence. The adolescent self-preoccupation is usually transformed into an examination and consideration of others. This observation of others often leads to deep insights relative to the needs of others. Yet an adolescent's activities for the gratification of others' needs are frequently interrupted by the emergence of his own acute desires. Behavioral priority for his own needs usually prevails. A young adult may attain a level of control which permits him continual service to the needs of others. Estimation of others' wants improves now, and the responses are less often interfered with by reappearing egoistic considerations. Versatility in relating to others greatly expands at this age.

Sensitivity to the needs of others tends to decrease with advancing age. At a later age, self-concern deepens and usually controls the direction of personal interests toward others. They become more often disregarded and forgotten in favor of self-preoccupation and gratification of one's own drives and inclinations.

Dealing constructively with frustration. One of the major signs of maturity is the increasing ability to delay the gratification of psychosocial needs and to control or tolerate considerable amounts of disappointment, deprivation, anxiety, and frustration in general. In recalling and examining some past frustrations, one should draw some positive lessons or values for future activities and learn about the possibilities of avoiding them altogether.

The adolescents' standards and ideals on the one hand, and drives of emotional and sexual character on the other, often do not readily fuse into an integrated and consistent conduct pattern; therefore, disillusion-

ments, frustrations, and conflicts occur which are likely to disturb the individual in a variety of ways and situations. As the adolescent becomes better able to cope with and solve these conflicts, he advances toward the attainment of maturity.

Adequacy in self-control status. A satisfactory handling of affection, emotion, and sexual and other impulses has to be achieved during the stages preceding adulthood. The personal direction of life energies toward well-chosen activities and goals and adequate standards of conduct and ideals signifies self-control and character. These, in fact, are the signs of maturation of a higher order. A tense, ill-tempered, envious, suspicious, and hostile person is both uncontrolled and immature.

Willingness to assume responsibilities. The person has to develop his abilities and advance his readiness to assume personal responsibilities pertaining to his status, duties, and obligations. Progress in anticipating and in setting long-term objectives has to be shown during the years of adolescence and early adulthood. Frequently willingness to assume responsibilities involves sacrifice and courage on the part of the adolescent or young adult. He must learn to overcome fear of failure, disregard feelings of disgust or apathy, and ignore comments from his peers when his responsibilities must be fulfilled. These and other conflicts must be met and solved in a rational manner before the young adult can develop a personality that is reliable in fulfilling duties.

Character. During the years of childhood, adolescence, and adulthood, the individual is exposed to a variety of societal, cultural, and moral factors and has a long-term task in integrating his behavior with them. Since moral maturation is often misunderstood or neglected, some clarification is needed in this area of development. Moral maturation commences when a child begins to show some obedience to the dictates of his conscience and when it becomes his own judge in the daily activities and organization of living in general. Progress in moral maturation is marked by an increase of freedom and will power to choose the good, yet selection of the bad is not excluded. The habitual choice of the good points to moral perfection, and it is an ideal for adolescent and adult alike. Hence, the morally mature person guides himself and is largely self-determined. In order to induce control over his instinctual urges, impulses, and undesirable emotions, he can utilize and control various brain mechanisms and neuromuscular systems. An individual may use self-control by substitution, whereby he replaces an unacceptable thought or desire with a more acceptable one, or by suppression, whereby he forces a thought out of consciousness by distraction. The individual may use neuromuscular control by refusing to give vent to an impulse, such as refusing to strike when he is angry. In such use of control, self-

imposed principles and values take precedence over his own convenience and gratifications in satisfying biological, emotional, and social needs [25]. When a number of ethical and moral principles are assimilated and start acting as effective behavior organizers, man begins to evidence character, which is one of the ultimate indicators of advanced maturation and of adult personality.

Self-reliance. Adequacy in facing novel situations improves as the person gains self-control through his past training, education, and other influences and begins to profit from them. Achievement of success in dealing with present situations promotes the feelings of self-might and self-worth. Such feelings inflate the ego, and as a result, the individual will hesitate less in applying his own resources. Consequently, the organization of the individual's energies for various life activities becomes a smooth process. A person is neither mature nor self-reliant if he seeks excessive assistance from others or if he expects or unduly requests privileges. Maturity rather implies considerable independence from others and primary reliance on oneself.

Harmony. L. Klages [21, pp. 310, 337] originates and H. Rempelin [28, pp. 415-417] elaborates on the concept of the *niveau* of personality. A high *niveau* is seen in the similarity between a personality and a piece of art filled with experiences of life, originality, and equilibrium between vitality and *Geist*, the rationality that channelizes the energy toward constructive goals and purpose. Harmony implies integrity and its maintenance of order under stressful conditions.

Weltanschauung. "Unifying philosophy of life," G. W. Allport's term [2], or "rational design for living," the phrase employed by M. B. Arnold and J. A. Gasson [3], both refer to this criterion of a mature person. Allport comes to the conclusion that religion represents the core of an adequate philosophy of life. "Religion is the search for a value underlying all things, and as such is the most comprehensive of all possible philosophies of life [2, p. 226]."

Acquiring a religious belief and its practice offers the means for a fundamental integration of human experience since it conveys meaning and value to all human activities. Philosophies with a lesser frame of reference are incapable of performing this. The famous psychoanalyst and psychologist C. G. Jung, after many years of clinical practice, came to the realization that unless a patient seeks and regains a religious outlook, psychotherapy is principally unsuccessful [20, p. 264]. Another psychoanalyst tells us of this important relationship. "In my experience, lack of religious faith or loss of faith has often proved to be a serious indication of a disordered person [33, p. 283]." In this respect, Bishop Fulton J. Sheen indicates an important relationship: "Anxiety increases

in direct ratio and proportion as man departs from God [30, p. 19]." Father John A. Gasson [3] emphasizes love of the Creator of men as the final remedy. "In the actual and active loving of God, the person finds himself in the most suitable condition with respect to himself, with respect to his environment, with respect to inner tendencies, 'for them who love God all things work together unto good.'" Hence, the rational design of living representing the Christian hierarchy of values establishes a complete coherence between the natural and supernatural, between the person's self-imposed ethical principles and his religious experience.

DEFINING THE MATURE PERSON

In terms of the presented criteria and their basic implications, a mature individual is a person of chronologically adequate physiological, sexual, mental, and ego development who:

1. Has ability to respond differentially in terms of his needs and outside factors operating in his situation.
2. Channels his tensions, impulses, and emotions into constructive behavior, and directs his behavior toward achievement of positive long-term goals, yet retains the basic sensitivity, emotional driving strength, and the degree of satisfaction and enjoyment of early adulthood.
3. In reference to his parents and peers, establishes interdependent patterns of relationships, and is able to impress and influence them and to maintain his role and response flexibility.
4. Is satisfied by and derives enjoyment from his status and occupation; continues to develop and expand a reservoir of abilities, skills, and viewpoints; learns to recognize his own assets and limitations; and seeks compromise and creative solutions.
5. Is at home with reality in most of its aspects; and has learned to see himself and others with objectivity, humor, and patience.
6. Contributes in his own way to the community, his nation, and humanity.
7. Feels satisfied with his own design for living and his assimilated *Weltanschauung*.

MAJOR IMPLICATIONS

It is well to notice that the presented criteria of maturity are related and overlap to an appreciable extent and that therefore, for practical estimation, one may need only three or four of them to come to practical conclusions in terms of a particular person under consideration. The criteria need to be considerably modified for a child or adolescent.

Moreover, any strict application may readily lead to a perfectionist interpretation. Human strivings for a higher level of integration, consistency, adequacy, and progress in maturity during adulthood do not make them perfect; mediocrity usually prevails. There is always much to be desired in terms of human potential for creative and integrative activities when closely observing the spectrum of interpersonal, intergroup, and international behavior. Murphy's *Human Potentialities* [24, pp. 129 ff., 243 ff.] points to many possible extensions of creative activity to new dimensions and fields by developing and applying powers contained in the "three human natures," namely, biological, social-cultural, and that of creative understanding.

Maturity and adjustment. These appear to be two inseparable attributes of life activities. Without satisfactory progress in maturation, adequate adjustment to oneself, to others, and to God is inconceivable. Age-related maturity is a determining disposition toward proper responses and relationships, even when many situations are frustrating, depriving, or otherwise adverse.

There is, of course, no one-to-one relationship because adjustment has a larger frame of reference and involves interaction of factors which may make mature responses impossible; for example, a drunkard husband lacking moral or religious motivation is an individual to whom wife and children may not be able to adjust, yet the lack of such adjustment cannot serve as a sign of the wife's immaturity.

It is conventional to indicate that maturity promotes mental health and general welfare since it safeguards the individual from prolonged conflicts, troubles, and anxieties. It provides stimuli for familial and communal improvements because a mature individual acts as a corrective influence in some ways at least.

QUESTIONS FOR REVIEW

1. Analyze the process of human maturation in the light of adolescent developments and then explain its end product, maturity.
2. How well is the concept of maturity defined and accepted as a subject matter of developmental psychology?
3. List several sectorial indexes of maturity. Select and examine one of the global criteria of maturity.
4. Explain the relationships between reason, conscience, and moral maturity.
5. How does independence contribute to personal maturity? What is the relationship between interdependence and adult maturity?
6. In what ways does the philosophy of life or a rational design of living promote maturity?
7. What are the outstanding characteristics of a mature person? How will such a person cope with the problems and some adverse situations in his life?
8. Indicate some relationships between (a) maturity and adjustment, (b) maturity and mental health.

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Developmental Tasks of Early Adulthood

FOLLOWING the stormy period of adolescence, the individual in our society is faced with yet another problem, that of integration into adult society. The challenges and responsibilities that must be met and accepted are many, and the possible hindrances to satisfactory adjustment and development are varied. The responsibility of participating in local religious, fraternal, and political organizations, of voting intelligently, and of keeping informed on international issues is becoming more and more mandatory if the young adult is to take his place in adult society as a peer. This chapter attempts to analyze the major developmental tasks and problem areas in the early adult years.

ACHIEVING INDEPENDENCE AND RESPONSIBILITY

Among the criteria of maturity mentioned in the previous chapter are achievement of independence and willingness to accept responsibility. These are two of the most crucial attributes which distinguish an adult from a child or adolescent. The task of becoming independent and responsible is especially important in the emotional, social and economic areas of life. Each of these areas will be examined separately.

Emotional. Emotional independence may be understood as a progression from dependence to relative autonomy. In other words, although maintaining close emotional ties to others, when others disagree or are displeased with him, the individual becomes less susceptible to disappointment or despair than he was as a child. Emotional independence is

the most important and the most difficult independence to achieve. The young adult must arrive at a level of affective development in which his emotional needs are best satisfied by peers rather than by parents. Too strong an attachment to one or both parents will create severe problems, especially in marital adjustment. If an individual derives his greatest satisfaction in pleasing his parents, or in being with them rather than with his peers, particularly the opposite sex, his emotional development is retarded or distorted.

In most cases, the individual begins to free himself from emotional dependence on his parents during adolescence. The increased social life of adolescence and new friendships with members of both sexes aid in the transference of emotional ties. During this time, feelings toward parents should become more adult in tone. That is, the affection should be coupled with mutual respect and less like the dependent attachment of children. Evaluating decisions and persons in terms of parents' opinions, or acting only with parental approval, are characteristic of an earlier level of emotional and self-development.

Attaining emotional independence does not imply complete self-sufficiency. Rather, the individual is interdependent. Affection, security, status, and related needs are satisfied by his marriage partner, his peer group, and even his occupation. The individual, in turn, contributes to the gratification of the emotional needs of others in his reference groups.

Emotional independence is not achieved by a mere transference of emotional dependency from parents to peers. The young adult who is dependent on his peers as he was on his parents is still far from being emotionally mature. Freedom from parental control, in terms of emotional attachment, is usually recognized by both parents and young adults as a natural step in the growing-up process. However, emotional independence means a certain degree of freedom from group domination as well. A young adult who feels lost when he is not with his particular peer group, or one whose decisions are dictated by his peers, is still emotionally dependent. Similarly, the husband who shifts his emotional dependence from mother to wife has made little progress toward emotional maturity.

The capacity to love someone other than oneself is another integral factor of adult emotional independence. Excessive self-love and the inability to give of self are not only signs of emotional immaturity but also of severe personality disorder. A successful marriage demands a giving of self, and one who is incapable of this emotional giving is going to have grave difficulties in adjusting to marriage [1].

Social. Social independence implies primarily the acceptance of the individual in adult society. To merit this, the individual must demonstrate decidedly adult traits and qualities, or despite his age, he will not be treated as an adult. The adoption of mature characteristics is gener-

ally not too difficult, and this criterion of social independence is rather easy to meet unless one strives for leadership.

Some young adults are not satisfied with mere acceptance in an adult group. Having been leaders in their peer groups, they strive for positions of power and prestige in groups or organizations composed of older individuals. Often their attempts are met by rebuff or overt hostility. These individuals must understand that in a sense they are on probation, and adults will not, as a rule, grant them positions of leadership until they have proved they are also good followers.

However, this does not mean that a young adult should not try to contribute to the group and in that way benefit both the group and himself. Volunteering for some of the necessary "busy work" and performing it well will gain him the respect of the adult group along with a heightened feeling of achievement and confidence in his dealing with his seniors.

A decidedly more difficult task, and one that is allied to emotional independence, is the achievement of self-direction rather than group domination. The socially independent adult is inner-directed rather than group-controlled. His decisions and behavior flow from personal convictions based on his own principles, values, and ideals. The group is not a constrictive force binding him with ties of dependency. Decisions of the group which run contrary to the convictions of the individual are not followed by an adult who has achieved social maturity. He has reached the point at which his feelings of personal adequacy and security are such that they do not need constant reinforcement, which implies dependence. Communication of one's beliefs is a part of group interaction.

Social independence carries with it social responsibilities. To partake in the privileges of adult life, the individual must assume the obligations of an adult. Civic, religious, organizational, occupational, and educational areas are but a few of those in which the young adult must assume responsibilities and be willing to do his part.

That many young adults are preparing for their future responsibilities by continuing their education through some college training is seen in Figure 20-1. The advantages of further training and education in our society are obvious, but some of the concomitant disadvantages are discussed later in this chapter.

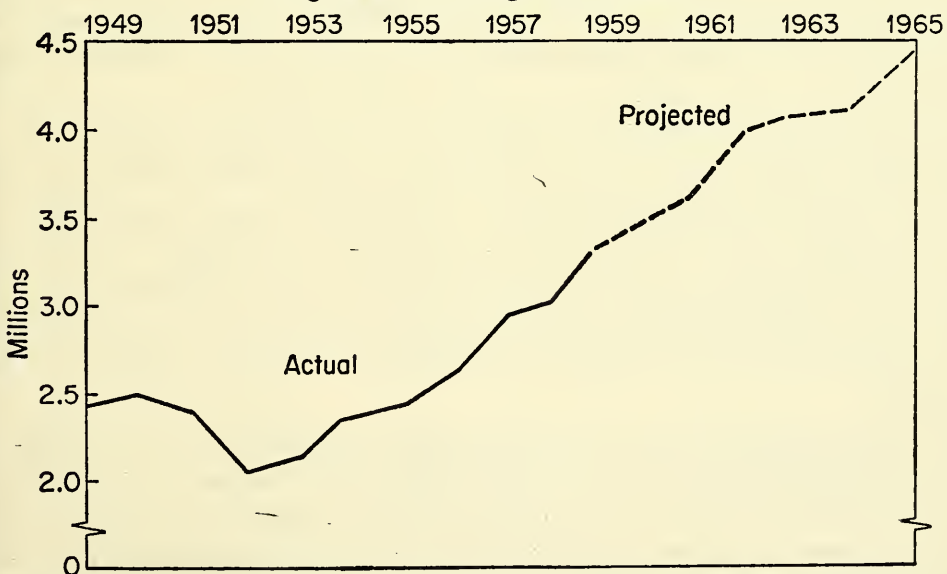
Economic. Integration in adult society usually presupposes economic independence in terms of being able to support oneself and one's family, if there is one. This idea also as a rule precludes living with one's parents, whether or not the individual is economically self-supporting. American culture, with its emphasis on more and more schooling, makes the attainment of economic independence difficult. Without special training, the number of possible occupations is severely curtailed. In order to secure

the necessary education for a specific occupation, the individual is, in most cases, forced to prolong his financial dependence on his parents. Parents usually encourage further training and the concomitant extension of dependence, and their authority over their children is often extended into the mid-twenties.

The young adult is faced with yet another facet of this problem. To continue training is, in many cases, to postpone marriage. This postponement of marriage and family life may seem too great a sacrifice to make, and the individual often tries to combine the two. The result is, in most cases, a severe strain on the marriage relationship, or an even more prolonged program of training or education because the individual is usually forced to take a job and relegate education to evening school. The birth of children complicates the already strained situation, usually to the detriment of education. This is not to imply that some couples cannot successfully combine marriage and extended training. The fact remains, however, that the first years of a marriage demand from both partners a great deal of cooperation and concentration. Attempts to combine education and marriage put a great strain on both endeavors.

Economic independence demands, along with freedom from financial dependence, an acceptance of financial responsibility. Young adults, especially in establishing a home, usually must go in debt for some necessities. The prompt payment of bills and debts demands a degree of maturity. Usually payment of large bills demands some self-denial in terms of putting off other purchases or curtailing entertainment. Indebtedness is often necessary, especially in securing such property as a

Figure 20-1. College Enrollment



(The American Association of Registrars and Admissions Offices, 1957-1965.)

home or an automobile. However, chronic indebtedness is a sign of financial mismanagement and a symptom of personal immaturity.

ESTABLISHING THE HOME

Perhaps the largest problem confronting young couples is the establishment of their homes. The economic, interpersonal, and social problems are many in such an undertaking. The interpersonal adjustments that must be made will be discussed in the next section. Other problems are primarily economic. Establishing a budget and adhering to it is a prevalent problem. However, this may be considered as merely symptomatic of a deeper problem, namely, that many young couples desire at the beginning of their marriage the same standard of living their parents have after twenty, thirty, or more years. The distinction between luxuries and necessities is often obscured, and consequently many commodities are acquired which are not really essential. The financial outlay in such cases usually produces a dearth in the budget in other areas. A certain amount of credit or installment-plan purchasing is almost necessary. In this connection, a rule of thumb is that indebtedness, including mortgage payments on the home, should in no event exceed 40 per cent of the yearly income. A realistic viewpoint regarding their desires as opposed to their income is a most desirable trait in a young couple.

MARITAL ADJUSTMENT

The marital role per se appears to involve the acceptance of another role, that of parenthood. A desire for children by one partner, social expectations for married persons to have children, and accidental pregnancies are some of the factors operating in this regard.

A young married woman is likely to entertain some imagination of "holding a baby in my arms," or "having someone little to love me," and she may want "someone helping me to spend the many hours while my husband is at work." The less pleasant aspects of pregnancy, childbirth, and many sleepless nights when the baby cries or is sick are less likely to come to mind or to impress her deeply at the budding stage of married life. Nevertheless, increasing age usually intensifies her desire to have children.

Life in the family involves fundamental learning in each domain of living. This learning advances before and when children arrive. The demands of sharing in daily chores, conversation, and activities, thoughtfulness for others, and respect for their claims and peculiarities become more complex with the addition of each new member to the family. It is

impossible to discuss all possible forms of relationship and interaction occurring within the framework of the family. Excluding extremes, each family represents living in most of its forms and vicissitudes. Family life is a stage of further growth for each member. Even friction among parents and within the total constitution of the family may serve as a necessary "training ground" for learning mature responses and better ways of settling interpersonal differences. The need and opportunities to utilize additional potentialities are often present. This affords maximal self-realization.

Since both parents come from different familial constellations and often have quite different backgrounds, it is normal that they have some differences of opinions about the rearing of children. Their attitudes toward children are likely not to be the same. This constitutes a source of friction in their efforts to train and educate their children. Some form of birth control may be seen as needed, yet the method to be applied often produces an issue. Moreover, a significant difference of opinion may appear concerning the methods of discipline. Leniency by one parent may be counteracted by a strict adherence to certain modes of punishment by the other parent. Then sympathy of the first parent on such occasions may make a child antagonistic to the other parent.

E. W. Burgess's and H. J. Locke's classification [6, pp. 464 ff.] of basic factors in marital adjustment includes personality characteristics, cultural backgrounds, social participation, economic status, response patterns, and sex desires.

ADJUSTMENTS TO PARENTHOOD

The decision to have children often involves some ignorance concerning the realities of motherhood. Unforeseeable contingencies may later distort the desire for motherhood even more and raise the feelings of rejection and hostility toward the offspring, especially if the child belongs to the sex other than the one desired or if he is handicapped. Since the appearance of tender sentiment and love is likely to occur, a mental conflict of considerable intensity may develop with some mothers. Thus, difficulties in adjusting to motherhood are not infrequent. The young mothers, however, have controls and stamina sufficient to overcome initial burdens, and begin to gain satisfaction as the child develops and exhibits his personality.

With many sources as a frame of reference, including fragmentary recollection of their own childhood, young parents begin to associate their role with maintenance of the physical and emotional welfare of their child. Care of his physical needs involves not merely age-related foods and clothes but also many comforts and provision of toys for

activity and education of the child. Emotional welfare of the child encompasses many expressions of affection and empathy. Continual love of the child implies frequent help and sympathy in time of trouble, tender handling, and patience with his desires and frequent whims.

General parental attitudes toward children may be identified as indifference, partial rejection, partial acceptance, and full-hearted identification with them.

1. Indifference may be experienced because of difficulties in accepting parental role, lack of affection and psychological fusion between adult and child environments, and extensive pursuit of pre-parental interests.

2. Rejection may only exceptionally be complete. Frequently it is partial and marked by alternating acceptance and hostile withdrawal into narcissistic gratifications. The ideas of children as intruders and added burdens may stand foremost in the parents' minds. They have to force themselves to accept responsibilities related to child rearing and education. Falling short in this, parents may shower their children with toys and gifts, handle them affectionately, and in many other ways compensate for their feelings of guilt.

3. Partial acceptance is often marked by setting high standards and expecting children to meet them. While children appear to be part of the scheme of the parents' lives and emotional identification often occurs, they are also seen as inadequate, misbehaving, and worthy of strict handling.

4. Fullhearted identification with children is marked by strong emotional ties, by disregard of the child's shortcomings, and by a belief that children are great challenges. Parents are ready to do anything in their power to promote the child's development and his welfare.

The father's role, in addition to breadwinning, includes many kinds of assistance and substitution, especially in the areas of discipline. It is often the father who begins to feel the growing obligations, and worries about his competence in adequately meeting them. The father's responsibilities usually grow as children develop, attend schools, and become adolescents, while gratifications coming from children largely depend on the adequacy of their early training. This, in turn, has been substantially determined by the mother's knowledge and adequacy in infant handling. The mother's personality traits contribute to or disturb the total family picture.

A family's compatibility and ability to act as a unit is tested each time a vital decision has to be made. Buying a house is one of them. Husband and wife frequently have quite different ideas about the desired qualities and characteristics of a new house for their family. The presented ideas about its location, construction or selection, size, style, yard, garage, and financing all may differ in significant ways. Division of responsibilities

and a readiness for tolerant compromises have to prevail in overcoming the obstacles met in one's strivings to possess a home of his selection.

Parental approaches in rearing and attitude tend to differ in some ways with each child. The first-born child often undergoes "experiments in caring for a baby," resulting from a lack of information and experience in managing a child. Advice of other people is sought and followed with relatively little skill. Occasionally the first-born baby is a victim of a parental overprotective attitude. All his needs and whims are responded to.

Experience in dealing with the first-born proves invaluable when the second child arrives. The mother often shows more confidence in herself and less concern about the baby. More often the second child is more neglected, and many of his whims and cries are disregarded. Difficulties with the first-born at this time are likely to arise if the second-born gains too much attention.

The third-born is not a novelty at all unless the first two were of the same sex and different in sex from the third. His care is more casual and tension-free. Parents have learned to delimit gratification of children's demands. The third and the following children are likely to suffer from this from the very beginning. With the exception of the last-born, they will remain less dependent on their parents and more affected by their siblings.

The children in the middle are likely to show less maladjustment in their childhood and adolescent years than the first-born or the last-born. Good adjustment on the part of parents and their adequacy in dealing with the specific needs of each child are key factors in childhood adjustment to the demands of reality.

In adulthood, being a member of a family typically involves sacrifices in personal freedom to choose what is most desired. When having a baby or young children, parents are restricted in their private and social life. While most kinds of occupational activities permit the father to be away for a considerable length of time, the mother is obliged to spend most of her time in caring for and entertaining her children. The present-day exclusion of grandparents from most families makes mother's substitution difficult. "Baby sitting" by someone else tends to produce much concern for the mother and frequently tones down her satisfactions considerably when she takes a "maid's night out" for a social evening or theater.

REMAINING SINGLE

A significant minority of young adults in our culture remain single. The reasons for this vary from individual to individual. Some enter the religious life, which in many cases demands celibacy. For many

others, the opportunity for marriage never presents itself. Some individuals feel a responsibility to take care of their parents, especially if they are extremely aged or infirm, and consequently deny themselves possible chances of marriage.

Despite the reasons for remaining single, the individuals who do so face special problems in their adjustment. Their personal adjustment is often difficult, owing to a feeling of aloneness, especially if they are not living with relatives. Socially they are somewhat out of place in gatherings of married couples. Additionally they are often urged by their married friends to reconsider their choice. In many cases, they are the object of matchmaking attempts by well-meaning friends, most of whom fail to realize that many unmarried individuals choose to remain single.

The opportunities for community, religious, or fraternal service as well as personal advancement are, in many cases, greater for single persons than for those with the responsibilities of a family [7]. Whether or not they use their free time for these activities depends on their values and aspirations.

ENHANCING SELF-REALIZATION

During the years of early adulthood, the individual generally comes to a realization regarding his personality. The unrealistic ambitions of adolescence have yielded to more practical goals. Self-knowledge in many areas is deepened by the reality testing of this period.

Assets and liabilities have been more clearly delineated by occupational experience, and personal qualities have been brought to the fore by the adjustments necessary to marriage. Planning ability has been tested in the reality of family finance, and the individual's ability as a provider is, by now, more adequately demonstrated. The interests of the young adult have crystallized somewhat, and his self-concept is more or less stabilized by this time.

It is at this stage that the individual is presented with enviable opportunities for self-realization. Consolidation of the gains made up to this point and a valid assessment of self will lead to progress in self-realization and enrichment.

SETTING THE PATTERN OF LIFE

Toward the end of early adulthood, the individual is in a position to predict, rather validly, his future and to set the pattern of life accordingly. Plans may be made for the attainment of long-range goals, such as educating the children or insuring independence after retirement. The trial-and-error experiences of raising infants may solidify into a definite

pattern for guidance of these individuals through childhood and adolescence. The individual's philosophy of life may be altered in the light of experience and in anticipation of future responsibilities.

QUESTIONS FOR REVIEW

1. Discuss independence as it is used in this chapter in terms of dependence and interdependence.
2. Explain the relationship between emotional and social independence.
3. Discuss the problems in attaining economic independence.
4. Explain the relationship between emotional maturity and marital adjustment.
5. Discuss some basic factors leading to marital happiness.
6. Discuss some major problems of the single person.
7. Identify some desirable qualities and traits of parents.
8. What developments in this period contribute to setting the adult pattern of life?

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Middle and Late Adult Years

THE MIDDLE STAGE of life commences when a person attains his peak in performing most obligations and activities in which he is participating. It implies completion of the upward development as well as an increase in the forthflowing integration among motivational tendencies, abilities, and skills. Most types of education and training are finished before one enters this stage. Moreover, vocational, marital, and other experiences are accumulated, and the pattern of life is largely set. In accordance with the present-day pattern of experience, it is estimated that women enter this phase of life at the completion of thirty years of life, while men follow suit at thirty-five. The middle period of life encompasses approximately fifteen of the most productive years of life. It gradually shades into the phase of late adulthood when declines are not fully compensated by a continual growth of diverse human potentialities. Because such declines are relatively gradual and do not normally impair the functioning of the individual to a great extent, both the middle years and those prior to old age will be considered in this chapter.

During the middle adult years, most individuals progress in extensive self-realization in vocational, marital, civic, and socioeconomic areas of living. Consolidation of previous gains also occurs at this stage. The intensity of experiencing life declines as compared to the adolescent and early adult stages of development. Since one's children are becoming adults, marrying, and moving away, responsibilities associated with child and adolescent guidance and education decline and, perhaps, terminate. With the increase of life expectancy, some extension of the middle-age span is observed. This extension and shorter working hours offer increased opportunity for self-chosen activities and personality growth.

SOCIOECONOMIC CONSOLIDATION

The adult person is continually ranked by his friends, associates, employer, and neighbors. The status to which one is assigned largely depends on fluctuations and changes in one's social traits, personality structure, and appearance, as well as on his economic standing.

By the time one reaches the middle adult years, his personality has become quite stable and there is little room for change. Nevertheless, some traits which were barely noticeable earlier may now come into prominence. For example, the man of forty-five who suddenly volunteers as a scoutmaster may have had a great deal of civic interest, but had to delay its manifestation until his responsibilities at home and at work permitted. Learning and experience contribute greatly toward the consolidation of previous gains by the personality structure. Some individuals go beyond mere consolidation by exerting considerable personal effort toward optimal development of their potentialities. Throughout these years a noted progress in personality and self-integration may be achieved.

Unlike the personality structure, social traits may fluctuate considerably, largely because the growth of social traits is closely related to gratifications coming from interaction with other individuals and groups. The young adult recently out of school, beginning the busy whirl of family life, belongs to few clubs and groups, and may barely make his social presence known outside his neighborhood. As the family grows into school age, many adults join groups related to their children's activities, such as the scout leaders, the parent-teacher associations, and the band mothers. Membership in formal clubs or groups reaches its peak at the end of the middle adult years and slowly tapers off with the approach of old age. Social confidence and poise tend to rise with the increase of friendships and the development of leadership traits. On the other hand, suspicion and hostility tend to arise when one lacks support in his personal goals or has to compete extensively with others. Interest and participation in civic and political affairs also rises constantly to a peak at about fifty years; however, unlike social traits, civic and political activity is maintained at a high level until very old age.

With most persons, economic status improves throughout the middle adult years. This is largely due to progress in vocational standing, seniority rights, and various fringe benefits on the one hand, and to decreasing capital expenses, such as buying and paying for a house or furnishings and providing infant and child care, on the other hand. Such expenditures usually burden the years of early maturity but decline at this age. The improving financial situation affords opportunities to acquire articles promoting the comforts of living. Some long-desired luxury

articles may now be secured. Personal satisfaction and a rise in social status often result from obtaining such finer and more comfortable items.

Progress in occupational standing usually comes to a standstill at about forty if not before. This standstill curbs any noticeable further climbs on the economic ladder. Excluding people in certain fields of business, in certain professions, and in some governmental positions, the economic dead end and lack of progress in vocational performance is felt by a large majority of the working population. This often is a key factor in self-reappraisal in the late part of this stage, which will be elaborated in a later part of this chapter.

A minority of less-endowed and emotionally or socially unstable adults continue to have employment difficulties for several reasons. Since they lack technical or trade knowledge, they represent the unskilled labor force, readily engaging in dead-end jobs and changing occupations frequently. They are plagued by intermittent layoffs or unemployment as automation processes and seasonal or general recessions eliminate job opportunities for the unskilled. Although the ranks of this category generally decrease with advancing age, the total percentage does not change much in large industrial cities at least, chiefly because of the present migration from the South to the North.

HEALTH AND ACTIVITIES

The prime of life does not end abruptly upon entrance into the middle adult years. The body with all its organs and systems continues to function near its optimal level throughout this phase, marked only by very gradual impairment which began with the early adult years.

Man's most vital senses, vision and hearing, illustrate the above statement most clearly. From childhood the lens of the eye begins to lose its capacity for accommodation, but visual acuity remains much the same until the age of about forty when sharpness of vision quite suddenly declines. While the majority of people never lose the ability to hear low-pitched tones, the progressive loss of hearing for high-pitched tones continues and is clearly noticeable after forty.

The vital organs likewise function at their optimal level during the twenties; thereafter their exercise is gradually impaired. Blood pressure slowly increases; after forty the increase may be quite sudden. The digestive and respiratory systems slowly decline with age, but usually this change is not apparent during the middle years.

Most investigations have found that sexual capacity is likewise greatest during the twenties. For males the decline is gradual until about age fifty-five; on the other hand, most females have traversed the menopause by their fiftieth year. Changes in the male's sex glands show little effect

upon the body's function or the individual's personality; he simply finds that his desire for sexual outlet decreases. For women the menopause can be quite upsetting. When the ovarian productivity declines, the total biochemical controls of the body are affected. Powerful psychological reactions may be even more disbalancing. In their mid-forties, women frequently suffer from marked excitability, hot flashes, sweating, dizziness, sensitivity to heat and cold, and other symptoms. Usually they become more irritable, restless, and depressed. There may be a noticeable decrease of self-control and feelings of adequacy. Normally these trying days continue for several months to a few years. Besides medication, forbearance and understanding from one's husband and close friends are most helpful in assisting the woman through her "change of life." Preceding the menopause, some women may strongly desire to have another child or may experience sexual preoccupation and enter into related activities in order to "make up for lost time."

The human body is a finely adjusted complex of systems and organs and structures which maintain homeostasis. With age, this ability declines, and recovery from an unbalanced condition becomes more difficult, especially after middle age.

Total physiological vigor and soundness of health is good throughout the middle adult years, but reveals a downward trend in later years. Both the rate of illness and the death rate persist at the minimal pace until the progressive acceleration occurs at about fifty. It is interesting to note that the causes of death are age-related. Accidents are the important factor until middle age; from that time on, degenerative conditions such as heart disease and cancer become increasingly prominent.

Activities in hobbies and in interests continue to decline from their high level before marriage. Near the end of the middle adult years, one finds his leisure time lengthening considerably. During the years that follow, those who cultivated hobbies in their youth readily take them up again in a modified form to reduce physical exertion. Apparently there exists an urgent need for education in the use of idle time, because while the need for activity and exercise of one's faculties persists, a great many persons neglect taking up hobbies to gratify this need.

Interests, or activities one has a "liking for" rather than participates in as hobbies, show definite age-related trends. Sedentary and noncompetitive diversions, such as listening to music and visiting historical places and museums, become increasingly popular, but active competitive activities show a continual decline.

Mass media of communication—radio, TV, newspapers, magazines—claim the largest portion of leisure time. The effect of mass media on the individual personality is great. There is much doubt, however, that the vicarious experience in the ready-made fantasy world which they provide

is a wholesome replacement for personal efforts which gratify basic human needs.

In a world of timesaving devices, automation, and shorter working hours, leisure-time activities gain more prominence in supplying satisfaction to acquired human needs. Time-killing pastimes should be omitted in favor of more creative, constructive, and noncompetitive activities. This constitutes one of the major developmental tasks of this stage, the stage of preparing for the late adult years and for old age.

PARENTAL ASPECTS

During the middle adult years, parents find that their offspring are no longer children but adolescents and young adults. Parental guidance and protection is vastly altered because teen-age children find less of their time and activities associated with home. As the children join their friends and carry out responsibilities in consequent group activities, they gain in motivational strength leading to greater self-reliance and increasing independence from their parents. Many parents get into difficulties with teen-agers in requesting their assistance with chores, such as caring for younger siblings, or in expecting them to return at a prescribed hour.

Despite the problems of parents with their adolescent children, the presence of children at home is challenging and reassuring. Many kinds of enjoyment increase at the time the adolescent is approaching adult status. Mutual growth in understanding and appreciating each other's interests and activities is the key to successful cooperative efforts in pastimes, projects, and the resolving of situations which previously provoked conflict. The parents often regret that this phase is rather short-lived, because when they really begin to feel gratification with their offspring and begin to desire this equilibrium to continue, their children, having completed their education and job training, are ready to move away, to get married, and to establish families of their own.

Late in the middle years and the immediate years that follow, the stage of "the emptying nest" commences with the marriage of adolescent or postadolescent children, and increasing moments of bleakness appear. Signs of the "dull residue of existence" may or may not appear, depending on the dominant attitudes and goals set earlier for the self-fulfillment of this period of life. Changing one's attitude and outlook must begin while the children are still in their teens. For example, the mother who has the ingrained attitude that her children desperately need her assistance enters this stage with much anxiety.

Again, the father who has forced his son to depend upon him for all his material needs may enter this stage with regrets that his son fails

to live up to expectations. Frequently the development of new or modified attitudes is not sufficient for the middle-aged or older adults trying to adjust to an empty home. By increasing one's activity in organizations and clubs, and by greater participation in civic responsibilities, one may help himself to gain added maturity to face the problems peculiar to this stage. Also, the discovery of new satisfactions in expanding the comforts and aesthetics of the home, in closer relationship to one's spouse and other relatives, in enjoying freedom of the week ends for social visits, hobbies, and travel—all will contribute to adjustment and also to enjoyment of this phase of life.

REEVALUATING THE SELF-CONCEPT

When a person begins to notice his difficulties in making progress at work or a hobby, or that his attempts to learn something new are less efficacious, and, especially, that some declines are quite obvious, self-concern of a considerable intensity appears. Even a decrease of gratification in the usual recreational or social activities adds its share of concern. Any excessive expenditure of energy begins to be marked by a lesser return. Such experiences readily offer an idea that one is growing old.

The already anxious person magnifies incipient signs of old age and even invents some new ones. Time and again a middle-age disease or ailment and the following convalescence offer some free time for the purpose of self-reappraisal. Anxiety may be intensified when the idea finds subjective support that one is losing some of his most appreciated qualities and abilities. Sexual capacity and appeal is one of them. Memory and the ability to learn are frequently others. Emotional ambivalence and oscillation, remindful of turmoils during early adolescence, may appear and lead to the second major crisis in the person's life. Deep philosophical and religious questions pertaining to the meaning of life and to the value of one's goals pursued during adulthood cry for answers; failure to resolve these problems can boost anxiety to disturbing levels. If routine activities lose their motivational strength because they seem purposeless, one may resort to neurotic self-defenses, such as withdrawal or depression, or attempts to engage in experiences which had much personal meaning earlier.

Throughout childhood, adolescence, and early adulthood, the individual feels he is in the process of becoming what he wants or what he has to be. Usually through the thirties, he continues to advance his status or improve his self-concept in some respects at least. He labors and expects "a break" to his advantage in realizing his personal aspirations. At about forty, many realize they are merely "holding their own" or

actually losing ground, long before their aspired ambitions are materialized.

The reevaluative step at this age often favors self-justification and placing the blame on closely related persons and circumstances. A husband blames his wife for unsatisfactory support in his strivings toward goals, while the wife spots many inadequacies of her husband in her attempts to safeguard her integrity. Statistics show that in the period 1950 to 1958 one in every ten marriages broke up after the twentieth year of marriage.

For the majority of adults, the early forties are the years of "retesting and realignment" for at least a belated achievement of selected life goals. New attempts at vocational improvement and marital reintegration usually encounter obstacles. After two or three years of trial, the middle-aged person feels forced to make a final estimation pertaining to his present level of success. Not many come to positive statements and see meaning in their renewed effort. Many recognize that they continue to fall short of their still-optimistic aspirations. Some of them show inability to reconcile themselves to the lack of appreciable gains. Blaming of self and others may reach neurotic or, in a minority, psychotic dimensions. Some react by escaping into alcoholism or paranoiac hostility. Attempts to destroy obstacles and enforce success often lead to adult delinquency. Not many are fortunate enough to change goals in terms of their ability or to acknowledge failure in a stoic attitude. Frequently compensation is sought through association with the more fortunate ones or by means of pressing their children to raise the family status.

As the middle and late adult years merge, one has fewer and fewer opportunities for self-assertion. This is a key psychological factor, prompting feelings of inadequacy and anxiety. If a person cannot balance himself to meet this problem, he may react by demanding exceptional performance from others, including those under his supervision. New interpersonal conflicts arise to increase tension and make the situation unbearable. Temper outbursts remindful of early years of childhood occur. Dread of sexual decline aggravates the problem. One becomes more entangled if complications arise out of previously ignored problems. As a result, symptomatic relief may be sought and a delayed neurotic pattern may take hold.

To many persons, the period of self-reevaluation is a temporary upheaval. The futility of such outbursts and depression is recognized, and renewed attempts to regain control over oneself and external situations lead to a gradual stabilization and readjustment long before the stage expires.

Among the very helpful sources for the understanding of the conflicts and adjustments at this middle phase of adult life, E. Bergler's *The Re-*

volt of the Middle-aged Man [4] and R. J. Havighurst and R. Albrecht's *Older People* [2] may be selected.

RECAPTURING YOUTH

Some drives and urges which have been satisfactorily controlled during adulthood may now reappear with new strength and a high frequency. An analysis will show a relationship to puberal and adolescent drives and impulses, many of them sexual in nature. The earlier inhibited tendencies apparently existed in the subconscious, and because they remained unsublimated, their vitality accumulated through formation of complexes involving related urges.

An Apollonian, or intellectually ordered and tempered, way of life may give way to Dionysian expressiveness and disregard of the moderate and conventional. Older men entertaining and dancing with adolescent girls or dealing in sex magazines are examples of such behavior. With age creeping up on him, a person may feel urged to engage in sexual and related gratifications before it is too late. Oral gratifications may be excessively sought after, and return to masturbation may also occur. This is more likely to happen to individuals whose maturity and personality integration were never completed processes. Adequate character formation and implicit philosophies of life are powerful deterrents to such attempts at recapturing youth or returning to immature modes of behavior.

Development of character enables a person to control such drives and urges, while a proper *Weltanschauung* assists the person in directing his energies toward constructive and universally more accepted channels of activity and self-application. Activities motivated by integrated character traits tend to bring ego satisfactions to a much larger extent than mere behavioral discharges of drives and impulses. For this reason, gratifications gained by altruistic, religious, and related activities are deeply satisfying to human nature and contribute much to the preservation of general welfare and, particularly, to mental health.

COMPENSATING DECLINE

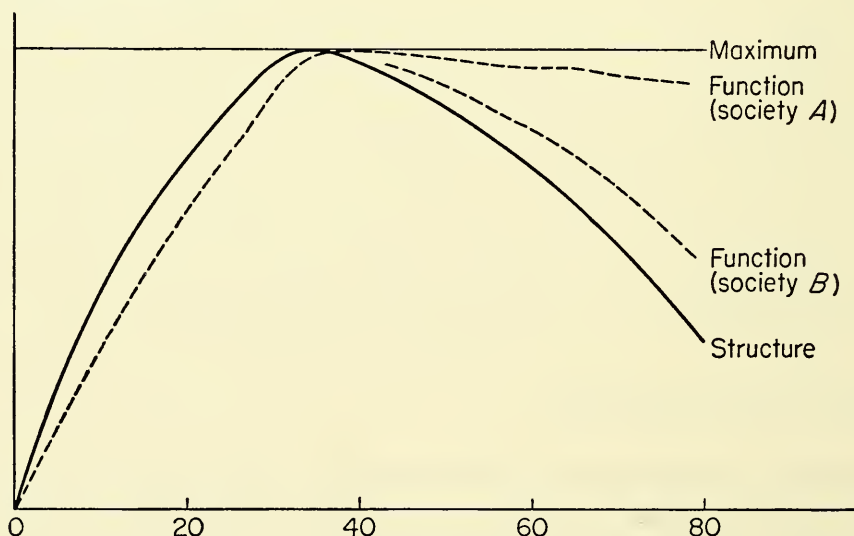
A program of objective self-examination will typically show many beginnings of decline, slow and barely noticeable in the early part of middle adult years yet continually increasing as the stage advances. There is a moderate decrease of psychomotor speed and strength. The biochemical equilibrium is in some cases disturbed by middle-age diseases, such as kidney and bile stones and respiratory or circulatory difficulties. If menial, mine, or factory-line work has been engaged in

throughout the adult years, old-age signs now begin to appear prematurely in many such persons. General organismic decline becomes conspicuous toward the end of the phase. D. Wechsler's evaluation [9, p. 206] points to gradual but significant declines of brain weight and to a lesser degree of intelligence-test scores as the increase of age continues.

Mental decline is usually more gradual than physical decline, while personality deterioration is rather exceptional in this phase. Occasionally some gains may be observed, especially among professional categories. Wherever vocational specialization and progress are possible, morale is easily maintained. A high level of self-realization is then made an actuality. Mental health and alertness may be preserved by the labor population by taking advantage of indirect compensation. Through diversified interests and hobbies, the range of achievement may be considerably expanded and other than vocational gratifications secured. Premiums on seniority are another factor in added satisfaction given the increasing age of the factory working groups.

Decline in the social dimensions of the individual presents a vivid contrast to the decline in the various other dimensions considered. In a survey study of social life of American adults, R. J. Havighurst [7] found by means of interviewing 234 persons in greater Kansas City

Figure 21-1. Relation between Function and Structure through the Human Life Cycle



(Robert J. Havighurst. *The Social Function of Middle-aged People. Genet. Psychol. Monogr.*, 1957, 56, 297-375, fig. on p. 345. By permission.)

Society A: one giving high status to older people and opportunity to continue their social functioning under favorable circumstances.

Society B: one marked as "youth-oriented society," which devalues middle and old age.

(Kansas and Missouri) that social function and competence in the period from forty to seventy is a plateau period with a slight decrease toward the later years. Figure 21-1 presents his hypothetical curve of biological equipment and social functioning in two forms of society.

One of the most efficient ways of compensating decline is maintaining awareness of developmental tasks of this stage of life and engagement in pertinent activities. Appreciable satisfactions are bound to result from goalful and age-related activities, supplementing and superseding the more energy-consuming activities of the earlier stages of life. The following section is a list of tasks related to the developmental level of middle-aged people.

DEVELOPMENTAL TASKS AT MIDDLE AND LATE ADULT AGES*

1. Helping growing and grown-up children to become responsible and socially integrated adults.
 - Freeing their time for social and recreational opportunities by taking care of their little children. Much enjoyment may result from such duties.
 - Encouraging grown children in civic activities and supporting them when they need it.
 - Developing mutually supportive relationships with grown children's and friends' families and with aging parents.
2. Developing new satisfactions with one's spouse.
 - Exploring new hobbies, club activities, and community projects.
 - Expressing appreciation for one's spouse in his attempts and performances.
 - Sharing his feelings and thoughts, aspirations and disappointments.
3. Creating a pleasant, comfortable, and aesthetically ordered home and yard.
 - Acquiring household facilities for comfort and ease of upkeep.
 - Remodeling and decorating in terms of family's interests and values.
 - Assuming responsibilities related to entertainment of members of the extended family and old and new friends.
4. Increasing social and civic activities.
 - Keeping informed about civic affairs, national and international events.
 - Exercising cooperativeness with others and groups in the promotion of religious and cultural ideals.
 - Taking an active part in several church and civic organizations.

* In this section we draw heavily on an excellent presentation of developmental tasks for fathers and mothers by Evelyn M. Duvall in *Family Development* [1, pp. 397-410].

5. Finding new occupational satisfactions.
 - Coming to terms with one's degree of success, and working with lesser tension and increased experience.
 - Contributing to the success of others by timely advice and assistance.
 - Letting younger persons take over some areas of responsibility without threat to self-respect or status; planning for one's eventual retirement constructively.
6. Making satisfying and creative use of increased leisure time.
 - Enjoying a chance to engage in activities for which time was unavailable before.
 - Sharing leisure-time activities with spouse and friends.
 - Balancing recreational activities in terms of activity and passivity, society and privacy, self-indulgence and service motivation.
7. Accepting and adjusting to the physical and mental changes of the middle years.
 - Getting regular medical and dental examinations; using glasses, hearing and other aids when prescribed.
 - Maintaining physical exercise programs appropriate to age and endurance.
 - Observing adequacy of diet and appropriate appearance; restricting tobacco and alcohol consumption.
 - Accepting normal age changes without undue concern about graying, or balding, complexion and skin, or decreased availability of energy.
 - Increasing records and order to balance decreasing power of memory.
 - Maintaining interest variability with emphasis on the intellectual and religious phases of life.
 - Making use of modern counseling and psychotherapy before problems, worries, or depression produces severe detrimental effects on personality integration.
 - Reaffirming moral and religious values of life and engaging in related practices which have real and transcendent meaning.

GROWTH OF PERSONALITY AND CHARACTER

In some fields one can continue to specialize and climb in his occupational status, but for most people personality and character are the only vital growth components at this stage of life.

Some changes in attitudes result from self-reappraisal when one admits the impossibility of regaining youthfulness with its intense gratifications. Identification with developmental tasks of this phase of life may gain strength and lead to some fruitful advances in orienting oneself

toward several constructive channels left at one's disposal. Increased perspective and a capacity for detached appraisal and calm enterprise with calculation of each step permit success in many social and business engagements.

While apathy erodes the personality structure, a certain degree of emotional detachment is helpful because it gives opportunity for a more objective approach in life with a lesser ego involvement and fewer deep conflicts and worries. Routine activities retain significance if they are better attuned to the hierarchy of lasting values. Past experience may serve as a guide toward wisdom in various undertakings. Regaining of mental peace and internal stability may be the most appreciated achievements of a lifetime.

The social expectation of a final settlement reinforces the need for a more permanent moderation and balance, for an assertion of a scale of values. The natural tendency toward lesser flexibility assists in development of a preponderant reliance on rational judgment and moral principles. Therefore, a higher consistency of character traits is a frequent outcome of earlier oscillations and search for something of a lasting value.

The mature person in his forties should conclude that life will not continue to be a supercharged carrousel; he will not be able to recover so effectively from mistakes caused by spontaneity and impetuosity. He more carefully integrates his behavior, becoming more steadfast to his cherished principles and ideals. Before a person enters the late adult years, a certain degree of rigidity is often attained. As a result, a general reliance on the habitual begins to expand into various behavior-organizing forces. This tends to promote the order and consistency of behavior and conduct by which late adult years are frequently marked.

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SECTION

IX

LATE STAGES OF LIFE

THIS SECTION presents developments and declines occurring during the years of old age. The present trend toward increasing life expectancy permits a large number of individuals to reach late adult years and to grow old. As a result, the percentage of older people in the population is steadily increasing. The following chapters consider the deterioration of various abilities and the limitation of activities that mark senescence. Problems of adjustment of an old person multiply, his particular needs intensify; yet ingenuity and wisdom are often advanced to make the final stages of life balanced and gratifying to the individual and to society as well.

Biological and Mental Changes

LATER PERIODS of life are chiefly marked by a decline in most constituents and traits of the person. The onset and rate of deterioration varies, however, from one organic system to another, from one person to another, and from one culture to another. The sequence depends upon many factors, especially hereditary endowment and specific past experiences, such as illnesses and injuries. The process of aging is closely related to personal and social adjustment during the years of adulthood. Satisfactory adjustment in adulthood promotes the integration and maturity which aid in maintaining health and the characteristics of middle age.

The time of onset of old age is difficult to define. Some persons reveal decided traits as early as forty; others appear still "young" at seventy. Just as no single criterion can be employed to delineate adolescence and adulthood, no decisive criterion can be given for the onset of old age. Individual variation is great indeed within each community and nation. Generally the mentally deficient, those with borderline deficiency, and physically handicapped individuals deteriorate early, and often at a fast rate. At the age of thirty or even earlier, defectives begin to exhibit signs of old age. Their life expectancy is very low. On the other hand, many well-endowed persons seem to be capable of resisting the oncoming process of decline up to sixty and seventy. Although the spry old person is in a much better physical condition than most persons who are several years younger, he is not so strong or vigorous as he was earlier, though he still manages to maintain a youthful attitude. The average person takes the middle ground. He begins to deteriorate earlier than the well-endowed person, yet his rate of decline is moderate. Ulti-

mately each individual has his own rate and pattern of aging, largely similar to many others yet always distinct in some traits and features [6].

DISTINGUISHING SENESCENCE AND SENILITY

A distinction between senescence and senility may be clarified at this point. Senescence is a period of life somewhat arbitrarily identified by the chronological age of a person. The age of sixty-five or seventy may now be held as a landmark introducing this last stage of life. Retirement also points to this phase of life. Any marked deterioration of biological or mental powers or of acquired skills is not implied. Preservation of many adult qualities and traits is frequent. Lesser activity and poorer self-application are usually implied.

Senility, on the other hand, although closely allied to senescence, implies a considerable loss. The preservation of adult characteristics is partial and infrequent. Senility is closely associated with a considerable loss of physical and mental functions, whether it happens in old age or prematurely. Impairments of brain tissues and motor coordination, irritability, considerable loss of memory and of self-control are typical signs of senility rather than of old age.

Generally the period of old age is one of widespread and often drastic change. Possibly only the years of early adolescence offer a comparable challenge to the self of the individual. As in adolescence, the late years of life are characterized by physical, social, and emotional upheavals. But, as in the early years, proper preparation for such changes can prevent them from being stressful and disruptive. Indeed, the late years can be ones of considerable tranquility and happiness.

As a person notices impairment of sense organs, lack of usual energy and speed, change in quantity and color of hair, and decline in sexual potency, all combined into any of many possible patterns, he cannot be but impressed by the fact of his own aging. As a result, he thinks about the role of an old person and gradually makes adjustments to it. Social expectation and cultural pressure act together, forcing an adaptation to a new mode of life often before the personal need exists or the time demands.

BIOLOGICAL AGING

Fundamentally, biological aging is marked by a lowering metabolic rate which slows down energy exchange within the organism. Hence, its resources for behavioral self-expression are gradually curtailed. Energy, when overused, is not fully recovered. The person loses powers

by vivid exertion in prolonged activity. There is always a gradual decrease of brain weight. The general health situation becomes precarious. Heart, kidney, bile, genito-urinary disturbances and other ailments are more frequent. Any injuries or wounds inflicted heal at a much slower rate than before. Sense receptivity becomes less efficient; difficulties with vision and audition are more frequent and severe.

During the late adult years, biological aging is a gradual debilitating process. It is also a process which cannot be stopped or reversed. Practically all bodily systems deteriorate in both their structural and functional efficiency. Functional abilities chiefly depend upon the circulatory system, which supplies the total organism with oxygen, fluids, and nutrition. The walls of blood vessels—arteries, veins, and capillaries alike—harden and narrow as the adult age advances. This, in turn, interferes with the optimal circulation of the blood. The hardening of the capillaries in particular disturbs the nutritional supply of various bodily systems and organs, including the central nervous system. The decreasing supply starts gradual muscular and tissue atrophy which, in turn, produces a loss of weight, immunity, and strength of some very vital organs, such as the brain, lungs, and heart. When the heart loses weight, the blood pressure mounts. At a certain stage of this process, a physiological insufficiency of the heart results. Physical work easily strains the circulatory system. Climbing several stairs increases the heart-beat and oxygen demand considerably. Any continuation of such action will disturb the organic equilibrium. While the amount of oxygen used is an indication of bodily strength, an older person soon demands more frequent periods of rest which decreases oxygen exchange. The over-all utilization of oxygen moves down with the advancing years. The lung capacity decreases rather rapidly. At the age of sixty its capacity is only one-half of its capacity at approximately twenty-five to thirty years.

A lesser use of calories is another sign of organismic aging and points to a lesser work capacity. Clinical experience indicates that biological aging can be slowed down by athletic activities. Continuing moderate and regular physical exercises throughout the years of adulthood may decrease the degenerative processes and help to preserve organic structures and physical well-being for several years as well as raise life expectancy appreciably.

Sensorimotor coordination gradually becomes less balanced. Response time increases, some movements become awkward; speed and gracefulness, when necessary, are difficult to attempt or not possible at all. Therefore, accident proneness is magnified. Personal appearance often loses its previous poise.

Every physical impairment or limitation may produce profound changes in the personality of the individual. Some of these modifications

are a direct result of the physiological functioning, for example, the memory losses following certain arterial disturbances. Other psychological alterations, however, represent more remote aftereffects of physical malfunction.

It is noteworthy that a person functions, not in terms of the strongest systems of his organism, but in terms of the weakest links in his bodily structure. Usually one vital organ or system "wears out" early in comparison to other physiological systems. Consequently, illness or even death results from such an impairment. Forces maintaining life are only as strong as their weakest vital component. Whenever a vital link "breaks," the resulting stress leads to death. When the old person engages in strenuous exercise of any kind, he has to take this principle into consideration [10, pp. 274 ff. and 299 ff.].

One major change resulting from physical impairment is the gradual restriction of the individual's environment. In infancy and childhood, a major contribution to psychological development was the increasing ability to go outside one's immediate surroundings. Now the trend is typically reversed. Gradual changes in vision reduce the degree to which the person can depend upon the written word for knowledge of the outside world. Auditory loss likewise reduces the effectiveness of verbal communication. Losses of motor strength and coordination similarly reduce the individual's ability to travel from place to place. Even with the automobile, which so greatly facilitates one's contact with distant persons and places, a gradual restriction is present. Visual deficiencies, increased reaction time and reduced coordination, and liability to increased fatigue all contribute not only to a loss of mobility but also to serious consequences for personal adjustment.

DECLINE OF MENTAL ABILITIES

Decline of immediate memory advances at a noticeable rate. Its role is then in part taken by imagination, a condition which leads to many confabulations, especially in attempts to report recent past events. Memory for remote events holds fairly well. This makes a person rely on his remote rather than immediate experience. Failing memory and a decrease of perspective are two key factors in delimiting general orientation in dealing with time and space factors. Time appears to pass at a much faster rate, and the old person has difficulties in adjusting to consequent inevitable change. As an old person forgets the names of streets, buildings, and their appearance, he at times may feel strange even in familiar surroundings.

Despite his accumulation of experience, an older person gets lower scores on intelligence tests, indicating a decline of his higher functions and performances. In order to preserve the IQ constancy, its computa-

tion is usually statistically adjusted to the normal rate of decline of mental abilities in adult and later years of life. The narrowing mental alertness barely permits the production or even acceptance of any new ideas and ventures. Considering alternatives becomes difficult. Creativeness, if developed and practiced, also declines at about the same rate as intellectual abilities do.

In vocational activity, an older person usually maintains his efficiency yet fails to progress. By the early sixties, many individuals begin to show some inadequacies in performing their accustomed work, and to do it tires them quickly. Retirement set arbitrarily at a particular age usually does little justice to those individuals whose capacity to perform is still high. Lack of proper recreational facilities for retired people is one of the major factors in eliciting feelings of inadequacy and depression. If experience is given no outlet for application, the resulting feeling of being incapable for service is detrimental to one's security and status. Psychological effects of "empty time" are damaging to many but especially to those who lack a variety of interests and hobbies to substitute for employment.

Although the amplitude of emotional experience and the control over feelings and emotions decrease to a great extent, emotional sensitivity does not. As a result, affective irritability rises sharply and emotionally toned discontentments are frequent. Tendencies to rationalize and to blame others by projecting are now two frequent means of self-defense.

Lesser engagement in social activities is often due to fewer satisfactions from such interaction. Difficulty in focusing sufficient attention and lack of information concerning present-day events are two factors contributing toward decline in interpersonal communication. Relationships with younger generations are often disturbed because of a conservative attitude and a resultant difficulty in approving new trends, fashions, and manners. Frequent attempts at domination are strenuously objected to by young people, who usually prefer using their own minds to relying on an elder's advice. The frequent withdrawal of old people does not help them to live harmoniously with themselves or others.

Old age is related to considerable changes in physical appearance. Normal physiological changes occurring within the body are expressed through biological necessity by a variety of surface signs. Loss of hair and change of its color to white, foldings of the facial skin, "old-age spread" and the "dowager's hump" are some of the easily observed senescent features. Accumulation of fat, especially in the abdominal region, and a general increase of weight are also related to intensified aging. Middle-age diseases may speed up this process beyond biological necessity. Generally much depends on the pattern of living and adjustment to the stressful situations and events developed throughout the periods of childhood, adolescence, and adulthood [7].

When a normal pattern of living and adjusting has been established and practiced, the aging process proceeds somewhat smoothly with little distress and anxiety; a person is often ready to accept aging and to make the best possible adjustments to it. If, on the other hand, emotional upsets have been frequent and self-defenses by projecting and rationalizing intense, these inadequate modes of reacting usually become magnified in late years of adulthood and senescence. At the menopause and through the climacteric changes, moods and other vivid emotional oscillations play a contributing role in the strain and stress. Adolescent maladjustments to the self or others are often reactivated. Since there is almost no change in erotic excitability, decreased self-control permits vivid symptomatic behavior. Earlier disguised attitudes of selfishness and superiority tend to become more marked, and are frequently exhibited by oldsters. A desire to be respected and honored by others is a raw form of self-aggrandizement. Persons who do not develop healthy control and sublimation within the earlier years of adulthood are likely to crave for oral gratifications at the time of aging. Since affectional needs are less often satisfied at this age, compensation by excessive eating is rather frequent. Constant complaining about related younger people and health and finding faults in others are other frequent modes of compensating. Boasting about past achievements in order to find reassurance is typical. These and related problems of many old persons make this stage of life appear as another period of crisis, comparable to puberty. In a significant minority of cases, this second turning point in life is accompanied by psychosomatic disturbances and, to a lesser extent, by presenile psychotic outbreaks. The frequent tendency to emphasize minor injuries and symptoms seems to serve several purposes: it provides an excuse from unpleasant obligations, it justifies the egocentric demands, and it brings indulgence and solicitude from others. The tendency to hold on to life somewhat corrects this despairing situation. Reactionary and conservative attitudes come into prominence as psychological flexibility and a readiness to experiment decline. Unfavorable experiences of the past make an older person tenaciously thoughtful and cautious. Anxiety, worry, and sensitivity to dangers greatly enhance reservations and withdrawal from challenging activities [9, pp. 62-64].

Old age is related to the increase of leisure time. When children marry and leave parents and, especially, when retirement comes, the remaining energy has to be directed toward previously neglected and new activities. Neglected potentials may now be developed and used. One should not feel it is too late to start something new. Old age is a satisfactory time for artistic and intellectual pursuits. Writing, drawing, painting, and a variety of craft work are good means to engage energy

and find enjoyment. Church, charitable, and civic activities, genuine concern about others, and conversational entertainment are usually gratifying engagements at this age. Active participation in some individual and group activities is of crucial psychological significance in terms of self-esteem and a sense of belongingness. The practically lifelong urge for rendering services is still in existence. It is advantageous to the old person to have opportunities of serving or assisting others [2].

Lifelong emotional reactivity patterns, attitudes, and sentiments related to values and various spheres of living are keys to the kind of emotional disturbance to which one is liable at this phase of life. Adjustment difficulties at the adult level tend to intensify significantly at a later age [7].

Most of the fundamental needs are now more intensely felt than earlier. Affection and love, recognition and respect, security and self-worth—all are vividly experienced by an aging person. Most of them find some difficulties in gaining gratification of these needs. Unduly high demands on the part of old persons are not infrequent.

PERSONALITY CHANGES

Changes in personality structure and organization encompass practically all of its dimensions. The usual decrease in motivational strength is linked with a narrowing range of interests and activities. Lesser gratifications result from poorer performance in most fields of endeavor. As powers decline, some interests, habits, and attitudes disintegrate too. A general decrease of flexibility and capacity to learn is directly related to the increase of rigidity and fixation. A desire to preserve an adult level of functioning is often felt but is usually unsuccessful. Many self-expressive activities, including speech and conversational skills, begin to evidence more obvious deficiencies than before. Redundancy of earlier and more satisfactory experiences preoccupies the old person in his conversation with others. Self-repetition and habituation to routine activities increase at a considerable rate.

Success in preserving integration of personality and its operative traits shows widespread individual differences related to former personality development. Individuals who acquired an attitude marked by a desire to learn whenever opportunities of learning existed now earn high dividends. So do those who faced reality in all of its dimensions throughout the stages of development, and in adulthood have acquired the needed reservoir of abilities, interests, and skills to cope with the emerging problems and novel situations. Their functional level of self-expression is consistent with their endowments and, as a result, many gratifying experiences of self-actualization result. Such experiences inflate the ego and facilitate readjustment to the old-age status. Lacking conflicts

and disillusionments, such individuals preserve personality integration during their advancing years.

Many others, owing to unfavorable parental and other social influences or through a lack of personal effort, acquired little knowledge in the complex art of living. They failed to develop their endowments, and internally remained in either an acute or a dormant conflict situation. As a result, through ages and stages an integrated personality functioning was practically nonexistent. In such cases, personality disintegration takes hold early and leads to pervasive results. Early senility is then a frequent result, appearing in later years of adulthood or early in old age.

Mental health after decline cannot be substantially improved during the late stages of life. Experts in psychotherapy agree on a poor response to counseling and psychotherapy after approximately forty-five years of age. Hypochondria, presenile psychoses, and a general senile dementia are acquired by a significant minority of older adults and old persons. Apparently they failed to deal successfully with moderate and severe conflicts and problems during their twenties and later and became liable to mental disorders.

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Senescent Self-concept, Needs, and Problems

WITH THE GRADUAL physical and mental changes characteristic of the later years of life, certain personality modifications are virtually inevitable. The entire concept that the individual has of himself undergoes change. Personal needs are modified, as are the opportunities and available modes of satisfying such needs. In addition, the person's role in society is altered. With all this, new and varied adjustments and problems are inescapable. Obviously then, this is a period during which the individual is called upon to enlist the resources he has developed during the preceding decades. Moreover, it is a period during which the sympathetic understanding of society is greatly needed.

HEALTH AND ILLNESS

As indicated in the previous chapter, the later years of life are characterized by a general decline of the biological systems of the organism. Despite the fact that wide individual differences in the rate and amount of deterioration exist, the appearance of physical impairment is inevitable. Witness the fact that visual and auditory defects become increasingly prevalent. Reaction time, strength, and endurance all manifest the aging process of the body. The incidence of illnesses and accidents, together with the reduction of recuperative powers, likewise points to the fact that biologically the organism is ever approaching death. Psychologically, these symptoms of aging are significant in themselves and, more particularly, in the effect they have upon the personality and behavior of the individual.

The dependence of mental and emotional functions on the integrity of the neurological and chemical systems of the body is well established. Any gross change in these systems as a result of disease or injury is automatically reflected in the behavior of the individual. Equally important, however, are the personality and behavioral changes which reflect the individual's reaction to his physical condition. Such "somatopsychological" changes, as Barker *et al.* [2] have termed them, may be just as significant as those biologically induced. Moreover, such changes occur even in the absence of serious, disabling physical changes.

With the appearance of the physical symptoms of old age the individual's concept of himself undergoes a restructuring process. Just as the bodily changes occurring with the onset of puberty forced the adolescent to revise his view of himself, so too the older person must alter the picture he has of himself. Sooner or later he must accept the fact that he is no longer the robust, healthy individual he was in earlier years. No longer is he capable of many activities which previously were part of his daily living. Increasingly he must protect his general well-being. Even when good health is maintained, the gradual reassessment of abilities and limitations and the awareness of potential dangers seems unavoidable if for no other reason than the fact that friends and peers are beset by physical ailments.

The gradual reorganization of the self-concept is not merely normal and natural but wholly desirable. Inasmuch as man's behavior is largely a reflection of how he perceives himself in relation to his surroundings, it is imperative that he have a realistic view of himself. The individual who refuses to accept the fact that he no longer is the capable person he once was is obviously rejecting reality. To the extent that his concept of himself fails to correspond to reality, he will be inadequate. The same problem arises, of course, in the case of the individual who exaggerates the physical changes he perceives in himself—the person who regards himself as completely limited, inadequate, and dependent upon others.

In addition to the rather direct impact that physical changes have on the personality of the individual, be he young or old, other effects may be noted. One subtle effect is the gradual restriction of experiences and intellectual stimulation. In early childhood, the acquisition of motility, spoken language, and reading skills meant the enlargement of the child's psychological world. More and more he was capable of reaching beyond his immediate environment to experience and thereby learn new things. With the gradual restrictions imposed upon the individual by physical limitations the world of personal experience shrinks. Visual

difficulties frequently limit the time spent in acquiring new ideas through the written word. Such deficiencies also tend to reduce the individual's freedom to leave his immediate environment. Hearing defects, especially if severe or uncorrected, cut the person off from many personal contacts and the information and stimulation they ordinarily would provide. Motor disabilities, even the mere lack of sustained endurance, reduce the opportunities for experiences and social interaction outside the immediate home environment.

INTELLECTUAL AND RELIGIOUS CONCERNS

In view of the foregoing, it is not surprising to find modifications of the intellectual activities of the elderly person. Without the intellectual stimulation provided by extensive and varied communication with the outside world, the individual is forced more and more to rely upon what he has learned previously. This paucity of experience and the increasing limitations in memory for new and novel concepts may readily account for much of the constriction and rigidity of intellectual activities so frequently associated with old age. Tendencies to reminisce and relive the past likewise become understandable. Similarly the decline of intellectual capacity reported in the later years may well reflect in large part the absence of stimulation. It is clear that the lack of exercise of any capacity or system, bodily or mental, ultimately leads to its deterioration.

Because of the lack of varied intellectual stimulation, the awareness of bodily changes signaling the eventual approach of death, and the increased amount of leisure time, the individual typically is impelled toward further self-examination. To what extent have earlier goals and aspirations been achieved? Is there any possibility that they might be reached in the future? To what extent were they really worth seeking? By such questions the individual is guided toward a reappraisal, or even a restructuring, of his philosophy of life.

In keeping with this concern for a philosophy of life, a workable hierarchy of values, is the individual's concern with religion. In seeking a permanent system of values and resolutions of the problems and vicissitudes of life, it is only natural that one examines his religious convictions. This growing interest in religion is vividly illustrated by the findings of Cavan *et al.* [3]. Whereas only 71 per cent of the men questioned in their early sixties reported being certain of an afterlife, 81 per cent of those in their late eighties reported this conviction. Interestingly, 83 per cent of the younger women revealed a certainty of afterlife; 90 per cent of the older group did so. Moreover, 100 per cent

of both men and women who were ninety years and older held to an afterlife.

MAINTAINING INTEREST VARIETY

With the gradual restriction of activities and the consequent limitation of intellectual, emotional, and social stimulation, it becomes increasingly essential that the individual maintain a wide variety of wholesome interests. There is, of course, no specific number or pattern that may be deemed best. But the need for genuine sources of activity and pleasure seems inescapable. Thus, a good example of how the present adjustment of the individual is dependent upon past attitudes and habits is found in the breadth of interests of the older person. Activities which have long held the attention and interest of the person typically tend to be maintained. This is particularly true when such interests do not conflict with specific physical or social limitations. Because of the increasing limitation of activities in the later years and the consequent conflict between interests and abilities, it is imperative that interests be extensive in range. Thus, if the interests are dependent upon the utilization of one sense modality and that mechanism becomes severely impaired, or if the interests are centered about purely social activities and the opportunity for such activities becomes restricted, the individual is greatly handicapped. Nor can this loss easily be overcome by the acquisition of new interests.

Although many elderly persons acquire new and rewarding interests, the task of doing so becomes increasingly difficult with the passage of time. For one thing, the opportunity of adequately testing new areas gradually is restricted. Entirely new, truly satisfying interests characteristically require a considerable time for development. Consequently, occasional or sporadic contact with areas of potential interest is generally of little value. Moreover, because of increasing difficulty in coping with totally new and novel situations, untried areas of interest are not so apt to be sampled. One again, therefore, is faced with the conclusion that the years prior to old age are the time during which genuine interests and areas of satisfaction should be developed. Even more essential is the formation of healthy attitudes regarding these interests. All is not lost if a certain activity is restricted; new, unsampled areas can provide sources of personal satisfaction. With such a background, the individual is prepared for whatever the future may bring. Even should certain sources of personal reward later be denied the person, he has the needed ability to face the loss and turn to other areas. He thereby is prepared to enrich and enjoy life rather than lapse into a state of self-pity or continuous

reminiscence, either of which is unrewarding and leads to stagnation and deterioration of the entire personality.

SOCIAL NEEDS

Throughout his entire life span, the individual lives in a social environment. He depends upon his fellow man not merely for physical support but also, more importantly, for psychological support and stimulation. This dependence fails to diminish during the later years of life. In fact, in many respects it frequently tends to increase.

By means of social intercourse, the individual is provided with a wealth of experience and intellectual stimulation. Just as the young child's boundaries of experience were vastly extended by meeting many youngsters in the school situation, so the elderly person's boundaries are partially determined by the scope of his personal contacts. New ideas, beliefs, and attitudes, all so necessary for continued mental health, are encountered. To some extent these stimuli can be and are provided by such impersonal influences as reading materials, radio, and television. The opportunity, however, for the individual to express and test his own ideas, beliefs, and attitudes is not provided by such media. Nothing less than direct personal contact will suffice. It is essential that the individual communicate such ideas and attitudes, that he test them in the light of others' reactions.

Personal contact also is necessary for the stimulation of feelings and emotions. Again other methods, such as passive reception by means of mass media and resort to vicarious experience, prove inadequate for the maintenance of a healthy balance of emotions. With the absence of normal social interaction may be expected either a gradual impoverishment of affectivity or an inappropriateness of reactions. As pointed out earlier, lack of exercise of any system, including the emotional, ultimately leads to the deterioration of that system.

The safeguarding of cognitive and affective processes is by no means the only function of social communication. The fundamental needs of recognition, love, belonging, and status depend upon interaction with others for their satisfaction. Frustration of these basic needs quite naturally leads to unhappiness, and is accompanied by any of the various devices employed whenever achievement of goals is thwarted, e.g. aggression, withdrawal, or regression.

Still another aspect of the social needs of the older person arises from the fact that the changes which he is undergoing are clearly perceptible to himself. Just as the young adolescent, upon viewing the gross modifications of his own bodily and mental structure, needed the

reassurance of others and feeling of communion with them, so too does the individual who witnesses in himself the widespread changes being wrought by advancing age need those about him. Therefore, the elderly person strongly seeks the companionship of those who genuinely respect his needs and understand his position.

SOCIETY AND THE SENESCENT

In addition to the adjustments facing the older person as more or less a direct result of the aging process, certain problems arise from his changing role in society. Some of these are related to his family and immediate friends, some to society in general. In either case they involve the older person's attitudes and behavior toward others and their attitudes and behavior toward the older person.

Whereas earlier in life the individual was the head of the household, helping to shape the lives of his children and others younger than himself, in the declining years this role is lost. The children have long since reached maturity. No longer are they dependent financially. No longer do they rely upon the judgment and decisions of the parents. Instead, frequently the roles have been reversed to the point where the parents are dependent upon the children to a considerable extent. Such reversal cannot help but alter the individual's concept of himself and present new problems of adjustment. Should he accept this as a sign of personal failure and inadequacy? Should he regard himself as a nuisance or a burden? How much personal freedom should he relinquish? A multitude of such questions naturally arises for the older person. His happiness and that of those about him depend upon the answers to these questions and the problems stemming from them.

Intimately related to this entire problem area is the attitude of the younger members of the family. Is the older person, for example, to be regarded as a liability or, at best, an ever-available baby sitter? Or is he maybe someone who needs constant care and protection, even to the point of being treated much like a young child? Obviously neither of these attitudes is conducive to a wholesome interaction of the persons involved. Indeed, any behavior which deprecates the dignity and self-reliance of the individual naturally produces serious adjustment problems for that person.

CONTRIBUTING TO THE COMMUNITY

An important aspect of the role of the elderly person in society is his capacity to contribute to that society. During the preceding decades he was a full participant in the civic and economic life of the community.

He bore full responsibility for his own welfare as well as that of others. Along with such responsibility went corresponding privilege and status. With retirement and increasing physical limitations, however, this role frequently changes, even to the point where the individual is financially dependent upon those about him. Such a reversal of role lowers his self-confidence. At the same time, the scope of personal privileges becomes somewhat restricted, thereby introducing additional adjustment problems.

During the years of middle adulthood, the individual was physically, emotionally, and intellectually capable of helping chart the course of the community in which he lived—economically, politically, and culturally. Because of his age and experience, he was generally accorded greater voice than young adults. With advancing age, however, this position changed. Evidence of this is the fact that no one younger than forty-two years of age or older than sixty-eight years has, to this time, been elected President of the United States [4]. For a variety of reasons, such as increasing physical limitations, the maturing of the children who formerly looked to him for guidance, the partial or complete retirement from gainful employment, and frequently the inability to modify long-held views in accordance with changing circumstances, the older person typically forfeits much of the control and direction he previously exerted.

By gradually relinquishing his role in and contribution to the community, the individual is faced with still another “break” with society. Without such participation, he tends to lose contact with the wide circle of peers and younger persons so necessary for intellectual and social stimulation. The result is naturally unfavorable for the personal well being of the individual. Moreover, loss of such contact leaves the individual less prepared to meet the problems of society and to contribute to the welfare of the community. Thus, the entire process may be seen to be circular.

RELATING TO INCREASING LIFE SPAN

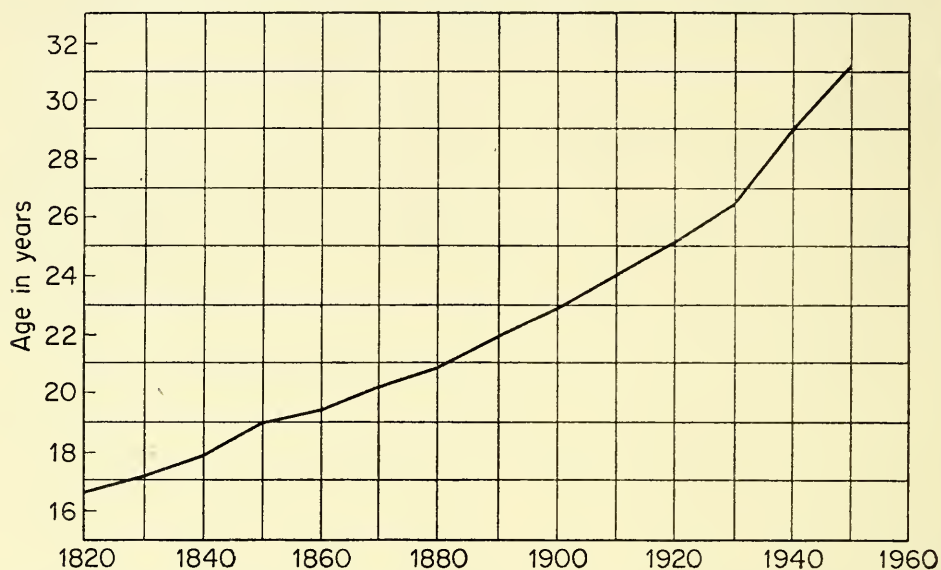
The social and personal problems related to old age are ever increasing. Because of the rapid advances in the medical sciences and the improved general conditions in which we live, man’s life span has been steadily growing. Figure 23-1 reveals that the median age of the American population has risen from less than seventeen years in 1820 to more than thirty years in 1950.

Not only has the median age of the population consistently increased but also the older age groups have exhibited remarkable growth. Where the total number of persons in the United States approximately doubled between 1900 and 1950, the number of individuals sixty-five years and

older almost quadrupled. As shown in Figure 23-2, this group constituted only 4.1 per cent of the total population in 1900. In 1950 it accounted for 8.1 per cent of the population. Moreover, government census projections are that this age group will steadily increase from the 14,127,000 persons found in it in 1955 to 20,655,000 persons in 1975 [5, p. 6].

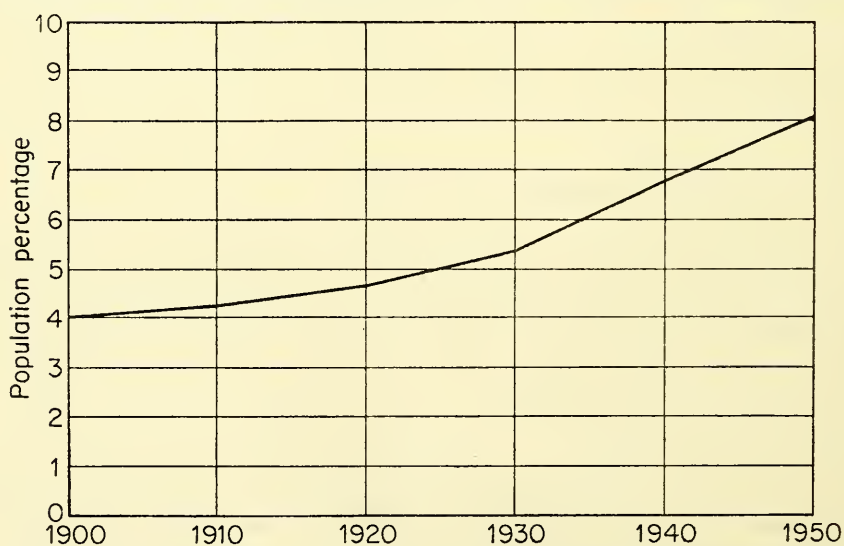
With the increasing number of individuals living to old age and with the ever-growing number of years that individuals tend to live beyond

Figure 23-1. Median Age of American Population: 1820 to 1950



(U.S. Bureau of the Census, *Statistical Abstract of the United States*; 1956, 77th ed. P. 21. 1956.)

Figure 23-2. Per Cent of Population 65 Years and Older: 1900 to 1950



(Henry D. Sheldon. *The Older Population of the United States*. P. 138. Wiley: New York, 1958.)

retirement, new problems beset society. Greater time, effort, and resources are required for research in the medical, psychological, and social problems of the aged. Vastly augmented facilities are needed for the treatment and care of the elderly population. In addition, the general well-being of the elderly depends upon opportunities for leisure-time activities and for productive endeavors: opportunities to do, to achieve, to feel success and a real contribution to society. Such opportunities demand the cooperation of society as a whole, not merely the aged society.

The problems of increasing age are, of course, not merely social. Each individual must prepare for a greater life span. Each must look forward to a greater number of years spent in retirement or semiretirement. Hence, every person must anticipate more and longer-term adjustments to old age than were common in past years. However, with the sympathetic cooperation of society and the acquisition of wholesome attitudes, interests, and activities the individual need not look forward in despair but rather with hope and a feeling of accomplishment.

QUESTIONS FOR REVIEW

1. What changes in the self-concept may be expected to result from the gradual decline of the bodily systems?
2. What is the significance of "somatopsychological" relations in behavior?
3. The restriction of the older person's environment has what important effects on personality and behavior?
4. Why is a diversity of interest areas established earlier in life necessary for the older person?
5. In what ways are social contacts essential to the well-being of the elderly individual?
6. What changes typically occur in the older person's status within the community?
7. Indicate how the age groups of the American population are shifting in proportion.

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SELECTED FILMS

- The Yellow Leaf* (27 min) National Film Board of Canada, 1957. Problems of an elderly widow before and when she comes to live in a home for the aged.
- Golden Age* (30 min) National Film Board of Canada, 1958. Explains 3 different approaches to retirement.
- The Steps of Age* (25 min) International Film Bureau, 1951. Pertinent to common problems of older people and their relationships with younger generations.

SECTION

X

RECAPITULATION AND CONCLUSIONS

THIS SECTION is self-explanatory. It is useful to survey the total span of life and to interpret crucial developmental factors and processes as these pertain to various phases of life at this stage of American civilization and culture. Certain conclusions become evident, and are brought into the final picture of human development.

Parents are key influences during the early periods of development, as one's family and peers are during the later stages of life. Personal endeavors at learning and integrating oneself within the societal and cultural matrix and self-willed pursuit of chosen goals greatly affect the consequences of one's constant conscious and unconscious search for one's own selfhood, for status within society, and for a determining purpose of life.

Synopsis of Psychological Developments throughout Life

GENERALLY the process of human development is a continuous, differential growth and organization of personality and self in terms of individual equipment and environmental opportunities.

KEY FACTORS IN HUMAN DEVELOPMENT

Parents exert manifold influences at the outset and during the early periods of development. The “psychic birth” [5] of most individuals occurs within the confines, setting, and atmosphere of the family. Peers and life mates are potent factors during the later stages of life. Apperceptual configuration of the past, attitudes toward various dimensions of reality and learning, social adjustment, and goal-directed activity determine largely the outcome of one’s attempts at self-knowledge and search for status.

The intricacies of our present society and culture with their space-age ramifications and opportunities call forth manifold and intensified challenges and responsibilities for the present and future generations.

In this “century of the child,” it may be thought that most persons receive an optimal start in life, which is of supreme importance. Some facts, however, seem to contradict this. A significant minority of children live without their parents or with only one of them. Many live with a stepmother or a stepfather. Chart 24-1 illustrates familial conditions of the year 1948. The situation mildly deteriorated during the following decade. An unidentifiable percentage of families, while held together by social pressures and some personal needs, may be seen as separated by

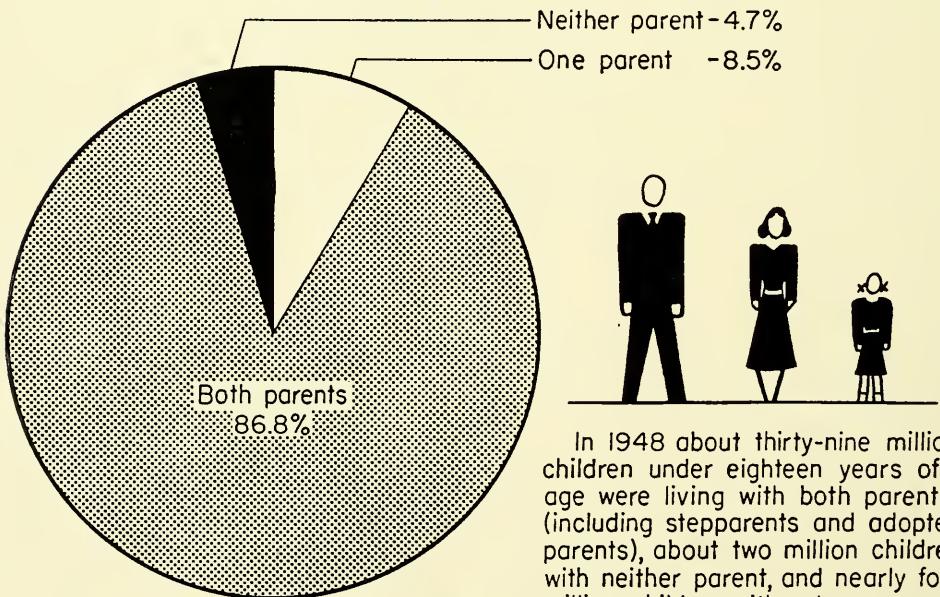
frequent dissension and psychological self-isolation from a sharing of attitudes, interests, and activities. A beginning and continuation of life without parents represents a major mode of early deprivation of proper sources for self-identification. Its undesirable impact on later life is difficult to overestimate.

As indicated earlier, the present trend toward lengthened education in some ways prepares for the complexity of modern urban life. The children and youth need a longer and better educational preparation for efficient adult living. A survey of statistics suggests that it is easier to fail in life as the twentieth century advances than it was before. Filled-to-capacity mental and penal institutions in 1960 and the rise of juvenile delinquency seem to attest to this. There continues to be a lack of concern with mental hygiene and psychological welfare but undue emphasis on material and economic goods.

FOUNDATIONAL PHASES OF LIFE

Prenatal, infancy, child, and adolescent periods form a foundational stage for the adult level of life: each contributes heavily to the adult traits and characteristics by its influence on the subsequent periods of development. Thus, prenatal development lays a foundation for developments during infancy. What happened in infancy affects the mode of

Chart 24-1. Living with and without Parents



In 1948 about thirty-nine million children under eighteen years of age were living with both parents (including stepparents and adopted parents), about two million children with neither parent, and nearly four million children with only one parent.

(Fact Finding Committee. *Midcentury White House Conference on Children and Youth. A Graphic Presentation of Social and Economic Facts Important in the Lives of Children and Youth*. Washington, D.C.: National Publishing Co., 1951.)

living and adjusting during childhood. Subsequent developments during adolescence can be readily traced back to childhood and, to a degree, to infancy. Let us retrace the influential developments throughout the span of life and see the pattern of development.

The prenatal period. The prenatal period is a stage of highly dependent existence at which human life unfolds in terms of physiological structure and individual viability, motility, and sensitivity to stimuli. It lasts until the individual reaches a state of intrinsic readiness to function outside the mother's womb. Although the developments occurring during the prenatal stage represent physical growth primarily, the psychological significance of this stage can scarcely be overestimated. The profound relationship between the physiological integrity of the organism and its psychological functioning is a key reason for this. The physical development may be viewed as the establishment of a sound or poor foundation for most future behavioral and personality characteristics of the individual.

Birth. Birth is the ejection and exposure of the fetus to a personal and increasingly autonomous existence. At this traumatic point, the newcomer's needs have to be met by other persons who may or may not have a satisfactory accumulation of information necessary to safeguard his welfare. The newborn may be embraced by the accepting hands and hearts of his parents or may enter a dismaying and discordant group of persons merely living under the same roof.

Even a casual inspection of the neonate gives ample testimony to the fact of amazingly complex development: the infant is able to respond to a wide range of stimuli; he can perform many types of movement; and he is capable of excitement and relaxation, of crying and responding to his mother's attitude and handling.

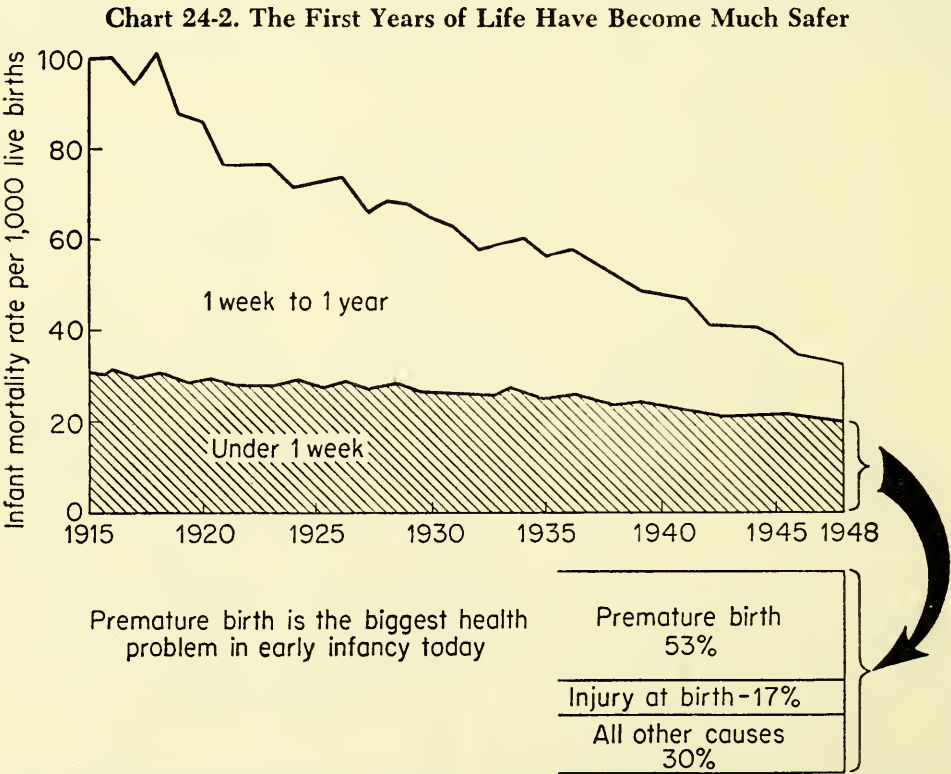
Infancy. Infancy may be readily seen as a key preparational phase of life because all major developments marking human life appear before this stage merges into childhood. Modern psychologists and other scientists interested in human development and adjustment do not fail to acknowledge the crucial role of the first two to three years of life. The provision for each individual of certain universal essentials makes unhampered development possible. Florence L. Goodenough and Leona E. Tyler [2, pp. 523-527] term these essentials "raw materials," some tangible, e.g., food, and some intangible, e.g., love. Both are indispensable in promoting the feelings of belongingness, security, and individuality. A significant minority of infants fail to receive the intangible essentials for their psychological development. As Chart 24-2 indicates, owing to the improved medical services the first year of life continues to become safer in surviving and in avoiding early stress.

During infancy the pattern of living and adjusting emerges in its

structural aspects. If the parental personality traits and the total atmosphere at home do not produce any distortions of this structural organization, the assumption may be made that the physical and mental well-being of this individual has a sound foundation and a certain strength to meet situations during the later periods of development. Encouragement toward self-initiative and self-reliance represents major assistance in psychological development of the unfolding personality.

Childhood. Childhood is founded on what has been developed or acquired during infancy, when the individual was heavily dependent on his parents and conditions at home. The timing of progress in developmental tasks may serve as a basis for useful predictions of further developments and of over-all adjustment. Figure 24-3 illustrates the average timing of the beginning and completion of some developmental tasks. It may be noted that some tasks are comparatively simple, while others are complex. When an infant is ready to walk, he indicates it by balancing himself. In two or three months the walking will be established as a useful means of locomotion. The general task of self-control begins early but extends well into the twenties.

A major mark of the child is his self-awareness and the beginnings



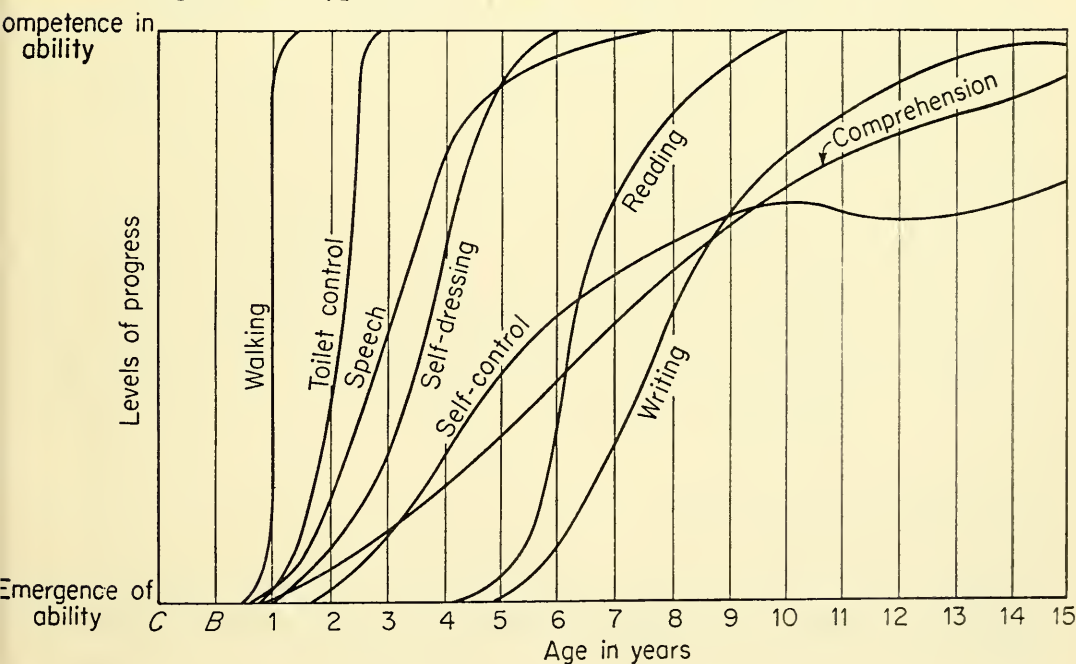
(Fact Finding Committee. Midcentury White House Conference on Children and Youth. *A Graphic Presentation of Social and Economic Facts Important in the Lives of Children and Youth*. Washington, D.C.: National Publishing Co., 1951.)

of self-direction. Although he is open to most environmental influences, his selectivity increases and, very importantly, the self stabilizes as a third major factor, heredity and environment being the others, in his activities and adjustments. The picture the child acquires about himself becomes a leading factor in further self-organization and trait development.

Neighborhood and school begin to play distinctive roles as the years of childhood advance. The child's milieu expands and begins to include many variables in his environment and culture. His curiosity and questioning impel him to explore by himself most of the observed, imagined, and intellectually apprehended phenomena. His suggestibility adds its share to social interaction. Thus, a child grows extensively into the world of others and into the objective world, as well as into a world of his own. It is good for the child if these three worlds largely fuse into each other rather than differ and distort each other. In some cases, a child may live too much the life of others, or he may withdraw deeply into the world of his creation. Most of the disturbances and disorders have their precursors within the years of childhood if not before.

Children grow into peer society before the span of childhood expires. This sets a basic pattern for later identifications with one's own contemporaries. Success with peers is crucial for present and later adjustment. Self-identification with one's duties and responsibilities is particularly advanced within the school years of childhood. Progress in self-utilization for the perceived goals and ideals also progresses during the later

Figure 24-3. Hypothetical Curves of Sundry Development Tasks



phase of childhood. Hence, the pattern of living and adjusting to the present situations makes the child ready to enter higher levels of maturity during the years of adolescence.

Adolescence. Adolescence encompasses puberal growth and later developments leading up to the adult pattern of life. It is a major testing ground leading to the acquisition of many somewhat final traits and features. Highest levels of intensity in self-observation, in emotional experience, and in moral-religious strivings usually occur within the period of adolescence.

Self-awareness is raised by turbulent rates of physical growth, sexual maturation, and the resulting difficulties in self-control. Moods, sentiments, and the resultant attitudes heighten emotional experience. This, in turn, tends to penetrate the entire personality and contribute to the further development of self-consciousness. Experience of the "voice of conscience" becomes vivid at this stage of life. Feelings of inadequacy, guilt, and remorse run high as the adolescent ventures into new experiences.

Maturation of intellectual capacity elicits a new level of "Why?" questioning and self-answering. A critical attitude toward parents, authority, and social bias is often a marked feature of the adolescent.

Sexual maturation and interest in members of the other sex is frequently accompanied by ups and downs, moving toward and moving away from adequacy in heterosexual relationships. Ambivalence and aberrations confuse the over-all picture of maturation. Frequent attempts to conform fully to the standards and actions of his peers assist the adolescent's socialization and promote interpersonal identifications.

Developments encompassing all sectors and dimensions of personality, while producing a temporary disbalancement of organismic equilibrium and self-control, are also indicative of the emergent adult pattern of self-organization and personality structure. Increasing adequacy in self-appraisal promotes ability-related performance and stability of behavior.

Toward the end of adolescence, one's picture of himself becomes more clear and complete. The person is then capable of visualizing his present roles and of projecting himself into future needs and goals. Many life-determining decisions are made before the individual enters adulthood, a period of development extensively predetermined by earlier developments and experience.

ADULT PHASES OF LIFE

Adult modes of experience and adjustment depend greatly on the solution of conflicts and anxieties present during adolescence. The establishment of control over impulsive, emotional, and sexual urges contrib-

utes much in forming an adult pattern of living. Constructive self-direction of energies and drives usually involves a considerable use of compensation and sublimation.

During adult years of life, marital dissension and vocational disappointments are two sources of frequent maladjustment. Personal insecurity and lack of orientation based upon one's capacities and assets represent principal etiological conditions in producing and intensifying neurotic modes of adjustment. With the achievement of vocational and marital stability, on the other hand, adaptation to one's environment is facilitated.

Since at this stage of life most abilities peculiar to the individual constellation of endowments are developed to a high level, their integration into a unique pattern and application in terms of selected environmental opportunities represent major developmental tasks. One has to find his niche in life and settle down before his abilities begin to decline more noticeably than at this middle level of life. At this phase, the individual still has good possibilities for correcting his psychological and personality weaknesses by his own efforts.

If a person makes efforts to apply his abilities and to promote his skills, if he expands his civic and cultural pursuits, a retardation of later decline may be effected. Adherence to physical and mental hygiene is a necessary adjunct to proficient living during adult years of life. Moreover, religious orientation is generally helpful in promoting meaningfulness of life activities and an adaptation to reality in all of its aspects.

DECLINING PHASES OF LIFE

During the years of adulthood, decline is a very gradual process. It accelerates as late adult years merge into senescence. Decline is a mark of all structural and functional powers. Structural deterioration usually precedes functional decline. Some organs and systems deteriorate at a faster rate than others do. Thus, the kidneys may fail and lead to death while the body is at a high level of vitality. A heart attack may also occur at an early level of decline. The amplitude of memory may narrow extensively, while the powers of reasoning may not show any marked decline. Any deteriorated organs or powers, however, have significant repercussions on the total organism and personality.

During the terminal years of life, the idea of death begins to enter the realm of imagination more often. To many persons it has a strong depressant power, something they object to facing and suppress. Difficulties in maintaining a previous social status and level of adjustment magnify. Withdrawal from physical and social activities may be a gradual or sometimes an abrupt change in the pattern of living. In order to avoid

any setbacks many older persons, however, continue to work hard. It may be noted that either unmodified continuation or sudden dropping of work tends to be an unhealthy influence. Not realizing their changed limits some persons, for example, strain their hearts by engaging in strenuous physical work, such as shoveling snow or digging in the garden.

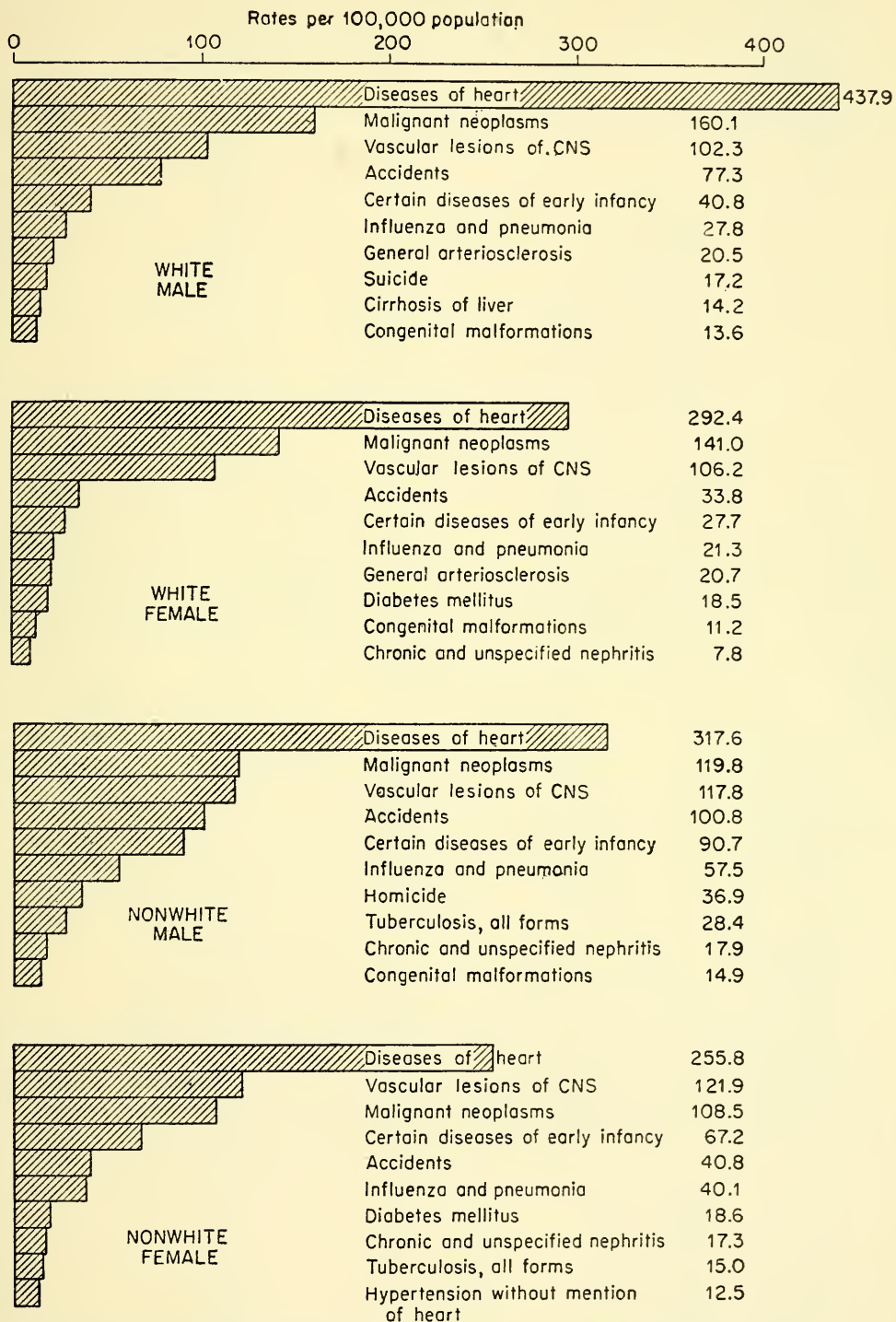
Many aging persons tend to cling to the picture of themselves evolved in early adulthood. Therefore, they continue setting long-range goals and easily project self-realization into the future. The difficulty in approaching these goals is often due to the decline of ability and to the incidence of illness.

DEATH—A FINAL TRANSITION

To the young adult the fact of death appears as an unusual phenomenon, strange and difficult to comprehend. His thoughts about death are accidental and short in duration. His participation at funerals is often based on an external necessity rather than a deeply self-involving event. The situation changes with the accumulation of years. An older person readily gets ego-involved, and his ideas of identification or self-reference are disquieting if not disturbing. The idea of being near death produces anxiety and stimulates preparation for it. As his imagination may continue to dwell on it, he may perceive himself entering a black space, concerned about the funeral. To many people the depressing idea of a bodily extermination may give way to a resigned or an anticipative outlook on death and the hereafter. When Socrates was sentenced to death and a glass of poison was put into his hands and had to be swallowed, his philosophical attitude brought a final yet immortal communication: "Only my body will die; my soul will eternally exist and be judged by a Supreme Being in accordance with the good and bad deeds of my life." This deep notion of a still-remembered philosopher reveals much about the human stand in this aspect of reality.

Fantasies which survey life are often vivid at the moments preceding death when the physical discomforts and pain subside. They are a transition into something final. It is more than fortunate when this review of life events and experiences brings a reaffirmation of life's philosophy and its key values. Evelyn M. Duvall [4, p. 430] puts it in these words: "Nothing can bring greater satisfaction than finding that life all adds up, and that together the two (husband and wife) know who they are and where they are headed in the business of living." Christians see death as the entrance into judgment and a life with God for those whose life accomplishments measure up to His justice and mercy.

Figure 24-4 identifies the ten leading causes of death in the United

Figure 24-4. The Ten Leading Causes of Death by Color and Sex: United States, 1955.

(Vital Statistics of the United States: 1955. Vol. I, fig. 20, p. 49. 1957.)

Table 24-1
Review of Human Development

Stage of development and approximate age	Physiological growth and psychomotility	Dynamics and motivation	Developmental tasks	Major hazards	Personality, self and character
Prenatal zygote, 0 to 2 weeks embryo, 2 weeks to 2 months fetus, 2 to 9 months	Implantation Differentiation of tissues and bodily systems; emergence of motility and of sensitivity; approach to natal status	Maintenance of organismic equilibrium	Proper physiological foundations for postnatal developments; biochemical controls; viability	Defective heredity; endocrine and circulatory malfunctions; certain maternal diseases	
	Increase of sensitivity and sensorimotor coordination	Satisfaction of bodily needs; intense need of mothering	Preservation of life: adjustments to new external and internal conditions, e.g., temperature, food, etc.	Birth complications; disequilibrium and infections; lack of mothering	Adjustability versus excitability
Early infancy, 2 to 15 months	Rapid growth in size and weight; beginnings of neuromuscular coordination	Great interest in environment; recognition of mother and familiar objects; rapid emotional differentiation; strong drive for activity	Gaining control over neuromuscular and vocal systems; acquisition of new attention-getting techniques; establishment of emotional security	Lack of physiological stability and parental affection	Adaptability to parents; awareness of one's individuality; extroversion

Late infancy (beginnings of negativism), 15 to 30 months	Advance and completion of phylogenetic motor patterns	Taking initiative in exploration of surroundings; emergence of child motivation; increase of resistance to parental demands and suggestions	Progress in self-initiative; acquisition of speech facility; establishment of toilet controls	Difficulties in relating oneself emotionally to parents and siblings; distrust and fears; finding improper solutions to conflict situations	Narcissism; awareness of self; strong attitudes toward self and others arise
Early childhood, 2½ to 5 years	Acquisition of ontogenetic motor patterns; increase of gracefulness; decline in the rate of physiological growth	Interest in distant environmental and social relationships; fantasy display; make-believe; emergence of sentiments	Expansion of verbal communications and social play activities	Insecurity and childhood diseases	Great increase in social response; growth in self-consciousness and attitudes toward oneself
Middle childhood, 5 to 9	Advancing control over fine muscle groups, e.g., self-dressing and ball games	Increasing realistic attitude and adaptability; recognition of role relationships	Control of negative emotions; development of a scale of values; cooperative attitude	Lack of self-acceptance; attitudes of inferiority and defeatism	Extroverted and enthusiastic; appearance of character traits; growth in personal responsibility
Late childhood (pre-adolescence), 9 to 12	The rate of physiological growth reaches its ebb and then begins to increase; various motor skills are readily acquired	Establishment of sex identity; seeking adventure and novelty; scientific questioning	Growth into peer society; experience of group security	Poor peer relationships	Greater self-containedness; loosening of emotional identification with parents; wondering about the years ahead

Table 24-1 continued

Stage of development and approximate age	Physiological growth and psychomotility	Dynamics and motivation	Developmental tasks	Major hazards	Personality, self and character
Puberty (early adolescence) girls, 11½ to 14 boys, 12½ to 15½	Turbulent growth of many organs and systems; approach to adult size and proportion; biochemical balances disturbed; external awkwardness increased	Strivings for independence; negativism; emotional oscillation, ambivalence, and moods; emergence of powerful sexual drives; erotic fantasy; strivings for interpersonal intimacy with peers	Enlarged body; self-reorganization and attempts at independence by emancipating self from the family; control over sexual impulses	Isolation and excessive reveries; lack of self-assertiveness; extreme rebellion	Increase of introversion; indecision; search for human models and oneself
Mid-adolescence girls, 14 to 16 boys, 15½ to 17½	The rate of physiological growth slows down; considerable gains in fine motor control and strength	Powerful drive for social intimacy, including members of the opposite sex; expansion of intellectual quests and reasoning	Acceptance of a masculine or feminine role; identification with peers	Peer rejection; perfectionistic aspirations	Lack of self-integration, antagonistic strivings frequent; magnified awareness of personality qualities and traits
Late adolescence girls, 16 to 19 boys, 17½ to 21	Appearance of adult characteristics; adult performance level is approached; biochemical equilibrium reestablished	Approaching heterosexual adjustment; striving for maturity and popularity	Selecting occupation; assuming civic responsibility; improving self-control; formation of <i>Weltanschauung</i>	Self-rejection and neurotic or delinquent solutions of mental conflicts	Crystallization of character in terms of social and moral norms; future planning

Early adulthood women, 19 to 30 men, 21 to 35	Optimum level of physiological development and psychomotor controls is attained	Establishment of a relatively persistent hierarchy of motives; vivid social interaction	Establishing economic independence; selecting a mate and starting a family. Preserving control in emotionally-charged situations	Fixation of pubertal and adolescent attitudes and modes of adjustment	Integration of behavior-organizing factors into a personally acceptable pattern; increase in extroversion; maintenance of flexibility
Middle adulthood women, 31 to 45 men, 36 to 50	Moderate decrease of speed and strength; greater appearance of physical limitations	Interest in children; comforts and stability; concern about vocational advance	Managing a home and raising children; contributing to the community; preservation of adult personality traits and abilities	Lack of a philosophy of life; inability to maintain economic or social standards of living; lack of readiness to release children; family dissension	Decreasing flexibility; reliance on the habitual and ideological
Late adulthood women, 45 to 70 men, 50 to 70	Problems in health preservation are frequent; decreasing physical strength and endurance; disturbances in sight and hearing	Decrease of interest and drive strength; restriction of activities; moods and worrying more frequent; leisure time activities sought; decreasing desire to learn new subjects	Adjusting to family changes as children leave the home; adapting oneself to retirement and income change	Presenile diseases; excessive demand for reverence	Increase of rigidity and decrease of resourcefulness; reliance on the past
Senescence, 70 to death	Further deterioration of sensory activity and motor skills; decreasing ability for even habitual performance	Desire to continue rendering services; withdrawal from social functions; discard of interests	Adjusting to death of spouse; willingness to take and appreciate assistance from others	Physical strain; self-isolation from relatives; skepticism and excessive preoccupation with self	Difficulties in relying on the past and the habitual; self-devaluation

States in 1955. It may be noted that heart diseases account for about one-third of all deaths.

Finally, Table 24-1 recounts some of each stage's essential growth occurrences, tasks and hazards, and aspects of motivation, personality, and the self. This schematic review forms an over-all representation of the subject matter and concludes this study of human development and decline.

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Glossary

Achievement quotient (AQ). The ratio between the individual scores of scholastic performance and the standard scores.

Adjustment. A process by which a person satisfies his internal needs and efficiently relates to environmental, social, and cultural demands.

Adjustment, emotional. A state of age-related emotional maturity marked by a relatively stable and moderate emotional reactivity to affect- and mood-eliciting stimuli.

Adjustment, social. Reaction to others favoring harmonious relationships to family and to other reference groups.

Adolescence. The developmental period from the onset of major puberal changes to adult maturity.

Adrenals. A pair of ductless or internal-secretion glands, adjacent to the kidneys, secreting adrenalin and cortin.

Adult. A postadolescent person who is mature in all major aspects and is capable of a satisfactory adjustment to himself and to his environment.

Affect. A vital feeling, mood, or emotion, characterized by specific physiological (psychophysical) changes and feeling states.

Age, mental (MA). The level of intellectual efficiency as determined by a test of intelligence; the age at which a computed score on an intelligence test falls.

Age norm. The average for a given age as revealed by sample group performances at this age.

Aging. The continuous developmental process beginning after conception and ending with death, wherein organic structures and functions of an immature organism first grow and mature, then gradually deteriorate.

Altruism. Deep unselfish concern for others often expressed in behavior.

Ambivalence. Internal tendency to be pulled (physically or) psychologically in opposite directions, e.g., acceptance-rejection, love-hate, participation-withdrawal.

Amnesia. A process of dynamic forgetting due to a strong mental conflict and self-defensive repression.

Anesthesia. The lack of psychophysical response to sensory stimuli.

Anoxia. Deficiency in the supply of oxygen to the tissues, especially the brain, causing damage to their structural integrity.

Anxiety, neurotic. The experience of distress and helplessness due to ego damage or weakness, accompanied by an expectation of future improbable danger or evil.

- Apperception.** A mental process of interpreting and assimilating new experience or behavior in the light of past experiential background.
- Aptitude.** A recognizable capacity or potentiality for specific achievements, if the person is exposed to some amount of training.
- Aspiration, level of.** The level of anticipated achievement, or the standard by which a person judges his own activity in reference to its expected end results.
- Atrophy.** A process of decrease or degeneration.
- Attitude.** An acquired persistent tendency to feel, think, or act in a stereotyped manner toward a given class of stimuli.
- Autistic.** Self-centered; with perception, feeling, and thinking unduly controlled by personal needs, desires, and preferences at the expense of sensitivity to others or to situational demands.
- Autogenous.** Self-originated, as distinguished from what is elicited by outside stimuli and learning.
- Balance.** A state in which antagonistic forces are equal or cooperate in behavior organization.
- Behavior.** Any kind of reaction, including complex patterns of feeling, perceiving, thinking, and willing, as response to internal or external, tangible or intangible stimuli.
- Bio-.** Prefix referring to life or to the biological aspect of personality.
- Birth injury.** Transient or in some ways permanent injury to the infant immediately preceding and during the birth process. Various disabilities are attributed to brain damage occurring as a result of birth injury.
- Cathexis.** Attachment of affects and drives to their goal objects; direction of psychic energy into a particular outlet.
- Character.** The acquired ability and facility for acting and conducting oneself in accordance with a personal code of principles based on a scale of values.
- Chromosome.** The minute threadlike body which is assumed to carry multiple pairs of genes in the human cell.
- Child.** An individual between infancy and puberty.
- Child development.** An interdisciplinary study of the growth and maturation taking place from infancy (sometimes birth) to puberal changes.
- Childhood.** The period of development between infancy and puberty (or adolescence).
- Compeer.** An age mate. Cf. Peer.
- Conception.** The process of merging of the sperm and ovum in human fertilization.
- Conditioning.** As used here, a mode of training whereby reward or punishment is made a part of the total situation with a view to eliciting desired (rewarded) responses in the future.
- Conduct.** That part of behavior of a person which is guided by ethical, moral, or religious standards.
- Confabulation.** An attempt to fill in the gaps of memory without awareness of the falsification involved.
- Conflict.** *See* Mental conflict.
- Congenital.** Referring to characteristics and defects acquired during the period of gestation and persisting after birth.
- Constitution.** Configuration of organic, functional, and psychosocial variables within the developing person which largely conditions his present status.
- Conversion.** As used here, transformation of anxiety and energies elicited by a mental conflict into somatic symptoms.
- Culture.** The mode of a people's life, characterized chiefly by intellectual and societal

aspects of a given civilization; its child rearing and education, customs and mores, traditional civic and religious practices.

Daydreaming. A form of withdrawal from subjectively perceived unpleasant reality into the realm of fancy and reverie frequently of a pleasant, wish-gratifying type.

Defense dynamism or mechanism. Any stereotyped response pattern that is spontaneously used to protect oneself from environmental threats, mental conflicts, anxiety, and other conditions which a person cannot tolerate or cope with directly.

Development. Encompasses processes of growth of the organic structures and systems, increases in all the functional capacities of the organism, and organization of personality and character.

Development, level of. A usually long period in a person's life marked by some specific clusters of traits, interests, and attitudes, and by a similarity in performance.

Developmental-level approach. That approach in which the total personality of the individual is considered at different phases of life.

Developmental psychology. A division of psychology which investigates the growth, maturation, and aging processes of the human organism, mental functions, and personality throughout the span of life.

Developmental task. A new step or increase of facility in the production of a more complex behavior pattern in any dimension of growth and maturation specific to each level of human development, adequate performance and application of which promote adaptation to reality and attitude of self-adequacy.

Differentiation. The process by means of which a variable or function becomes different, more complex or specialized; the change from homogeneity to heterogeneity.

Dimension. A coherent group of facts or processes having a particular denominator; e.g., intelligence, emotion, language may be seen as dimensions of personality.

Dimensional approach. That approach in which a specific aspect or group of aspects of personality is considered throughout several phases of life.

Drive. The resultant tension and awareness pertaining to an ungratified need and directed to a goal or valence.

Dynamic. Refers to forces and potent factors which are capable of producing some change within the organism or personality.

Dysfunction. Disturbance or impairment of a functional capacity of an organ or system, including mental abilities.

Ectoderm. The outermost cell layer in the embryo from which structures of the nervous system and skin are developed.

Ego. The core factor of personality or self, exercising control and direction of drives and impulses in accordance with reality demands.

Embryo. As used here, a human being in the early phases of prenatal development, from about two weeks to two lunar months after conception.

Emotion. A usually conscious mental state of experience characterized by feeling or excitement which is accompanied (and frequently preceded) by specific physiological changes and frequently by an urge toward a definite pattern of behavior.

Emotional lability. Easy reaction and shift from one feeling or emotion to another.

Endocrine glands. The ductless glands of internal secretion, such as pituitary, thyroid, or adrenals.

Endoderm. The innermost of the three cell layers of the embryo, from which most of the visceral organs and the digestive tract are developed.

Endowment. Adequate capacity for development, physical or mental, conditioned by heredity and constitution.

Envy. A distressful feeling aroused by observation that another person possesses what one now desires to have.

- Etiology.** The investigation of origins, causes, and contributing factors of a trait or disease.
- Euphoria.** A subjective intense sensation of vigor, well-being, and happiness, often despite some problem or disability.
- Extrovert.** A type of personality whose thoughts, feelings, and interests are directed chiefly toward persons, social affairs, and other external phenomena.
- Fantasy.** A function of imagination marked by engagement in vicarious experiences and hallucinatory actions; reveries, daydreaming.
- Feeling.** The tone of experience marked by pleasantness or unpleasantness, tension or rest, a mild affective state or emotional craving.
- Fetus.** As used here, the human individual in advanced stages of prenatal development, from two lunar months after conception to birth.
- Fixation.** The persistence of infantile, childish, puberal, or adolescent response patterns, habits, and modes of adjustment through successive phases of development.
- Frustration.** The experience of distress and morbidity induced by failures and by thwarting of attempts to gratify one's needs or ambitions.
- Gene.** A submicroscopic structure in the chromosomes (assumed to exist); a carrier of a hereditary trait.
- Genetic psychology.** The branch of psychology that studies the human organism and its psychological functions in terms of their origin and early course of development.
- Group, reference.** Group one belongs to or is interested in belonging to, e.g., peer groups, usually of a considerable influence to the individual.
- Growth.** Increment to an organism or its structures, change toward a more developed state.
- Guidance.** Refers to a variety of methods, such as advising, counseling, testing, use of special instructional and corrective teaching, by means of which a person may be helped to find and engage in activities that will yield adequate adjustment and satisfaction and some achievement.
- Habit.** An acquired or learned pattern of behavior, relatively simple and regularly used with facility, which leads to a tendency to use such acts rather than other behavior.
- Hedonism.** As used here, a psychological system of motivation explaining all behavior and conduct in terms of seeking pleasure and avoiding unpleasure or pain.
- Heredity.** The totality of developmental influences biologically transmitted from parents (and ancestors) to the offspring during the process of conception.
- Heterogeneous.** Used in interpreting any group of individuals or items which show marked differences in reference to some significant criterion or standard.
- Homogeneous.** Used in interpreting any group of individuals or items which show marked similarity or low variability in the qualities or traits considered.
- Homosexual.** Centered on the same sex; marked by tendency to find sexual and erotic gratification with a person of the same sex.
- Hormone.** A specific chemical substance usually produced by an endocrine gland which affects some somatic and functional changes within the organism.
- Hypothesis.** A tentative interpretation of a complex set of phenomena or data on the basis of some supportive facts or findings.
- Id.** A psychoanalytic term which denotes the instinctive and impulsive drives seeking immediate gratification in accord with the hedonistic principle.
- Ideal.** A standard approaching some level of perfection, usually unattainable in practice.
- Identification.** A usually unconscious desire for identity through affiliation with and imitation of another person, group, or ideal in order to gratify some deep-seated needs.

- Incubation.** A period during which certain presented ideas gain in motivational strength and begin to condition a part of behavior, especially during childhood.
- Individuation.** Differentiation of behavior into more distinct and less dependent parts or features.
- Infancy.** The first two to three years of human life, during which all major human abilities originate, marked by almost total dependence on others.
- Infantile.** Pertaining to lowest levels of postnatal maturity; mode of behavior or adjustment resembling the infant level.
- Inferiority attitude or complex.** An emotionally conditioned and frequently unconscious attitude in reference to one's own organism, self, or personality, characterized by serious lack of self-reliance and notions of inadequacy in many situations.
- Inhibition.** Preventing a process or behavior from starting by inner control, although the eliciting stimulus is present.
- Innate.** Existing before birth and accounting for a particular trait or characteristic.
- Intelligence.** The practical application of sensorimotor, perceptual, and, especially, intellectual functions, shown by standardized performances that are measurable.
- Intelligence quotient (IQ).** The index of mental and learning capacity resulting from an intelligence test, identified by a numerical ratio between the attained score and the normative score for that age.
- Introjection.** A form of unintentional identification whereby the environmental characteristics are assimilated into the self and modify motivational structure.
- Introvert.** A type of personality whose thoughts and emotions tend to be directed inward to self; one who, especially under stress, prefers to withdraw from external and social activities.
- IQ.** See Intelligence quotient.
- Juvenile.** Pertaining to older child or adolescent.
- Kinship.** Blood relationship between two or more persons; usually includes marriage and adoption ties.
- Latency period.** A psychoanalytic term referring to the period from approximately four to eleven or twelve years of age, during which interest in sex is not apparent.
- Libido.** A psychoanalytic term which designates total undifferentiated life energy (C. G. Jung), sexual in nature (S. Freud).
- Life cycle.** The total time from birth to death, emphasizing recurrence of certain important events.
- Malfunction.** See Dysfunction.
- Matrix.** A framework or enclosure which gives form or meaning or perspective to what lies within it.
- Maturation.** A key aspect of developmental change that is a level of functioning primarily due to heredity and constitution; developments leading to maturity.
- Maturity.** The state of maximal function and integration of a single factor or a total person; also applied to age-related adequacy of development and performance.
- Mental conflict.** An intrapsychic state of tension and indecision due to contrary desires, unsatisfied needs, or incompatible plans of action; also between conscious and unconscious preference.
- Mental hygiene.** The art and science of mental health; application of the principles and measures necessary for its preservation and promotion.
- Mesoderm.** The middle of the three fundamental layers of the embryo, which forms a basis for the development of bone and muscle structure.
- Method.** A logical and systematic way of studying a subject matter.
- Motive.** Any factor which stimulates or contributes to a conscious effort toward a goal.

- Need.** Any physiochemical imbalance within the organism, due to a lack of some nutrients, which arouses tension and drives. By analogy, psychological and personality needs are recognized. Primary or genetically determined needs and derived needs (generated by the operation of primary needs) are distinguished.
- Negativism.** A primary mode of expressing one's own will by persistent refusal to respond to suggestions from parental figures.
- Neonate.** A newborn infant.
- Neuromuscular.** Pertaining to both nerve and muscle, their structure and functions.
- Neurotic.** Mentally and emotionally disturbed; characterized by recurrent symptoms resembling those of neurosis.
- Normative.** Based on averages, standards, or values.
- Nousogenic.** Generated by the intellect or its functions.
- Ontogenesis.** As used here, origin and development of an individual organism and its functions from conception to death. Cf. Phylogenesis.
- Organismic age.** The average of all basic measures of a person's development at a particular time, such as carpal, dental, height, weight, and also achievement, educational, mental, and social age.
- Orthogenesis.** A theory assuming that the germ plasm is gradually modified by its own internal conditions and that an organism (and personality) has a specific, species-related course of development, unless blocked.
- Ovum.** The female germ cell.
- Parallel play.** The side-by-side play of two or more children with some independence of action yet heightened interest because of each other's presence.
- Peer.** Any individual on about one's same level of development and therefore equal for play or any other mode of association.
- Perfectionism.** The tendency of frequently demanding of oneself or others a maximal quality of achievement.
- Personality.** The multilevel functioning of those qualities, traits, and characteristics which distinguish a human being and determine his interaction with social and cultural factors.
- Phylogenesis.** Pertains to evolution of traits and features common to a species or race.
- Projection.** A self-defense dynamism, by which an individual attributes to others his own qualities and traits, usually undesirable, such as hostility or dishonesty.
- Psychosomatic.** Pertaining to the effects of psychological and emotional factors on health and pathology; indicating that a phenomenon is both psychic and bodily.
- Psychotherapy.** The various procedures of systematic application of psychological techniques or principles in the treatment of mental or emotional disturbance or disorder.
- Puberal.** Pertaining to an individual in the developmental period of puberty.
- Puberty.** The period of physical (especially sexual) and mental maturation, characterized by rapid somatic growth and the assumption of some adult traits or features.
- Pubescent.** Pertaining to an individual in the early part of puberty or to anyone who exhibits some chief characteristics of that period of maturation.
- Rationalization.** A dynamism of self-defense whereby a person justifies his activities or conduct by giving rational and acceptable, but usually untrue, reasons.
- Readiness, principle of.** Refers to neurological and psychological disposition to attend to and assimilate a category of stimuli to which sensitivity and learning responses were previously lacking.
- Regression.** A reversion to an earlier and less mature level of behavior and personality functioning.
- Reinforcement.** Any facilitating influence or condition for strengthening selected behavior patterns.

- Resistance.** As used here, opposition offered by a child or adolescent to the suggestions, orders, or regulations of his parents.
- Role conflict.** The situation in which a person is expected to play two or more roles which he cannot integrate into his self-system.
- Self-direction.** Independent selection of goals and estimations by oneself of the proper means and actions to attain them.
- Self-realization.** The lifelong process of unhampered development marked by self-direction and responses in terms of one's capabilities or potentialities.
- Senescence.** The period of old age.
- Senile.** Refers to old-age appearance and behavior.
- Senility.** Marked loss of physical and mental functions in old age or preceding it.
- Sentiment.** An affective and cognitive structure of related attitudes toward a particular value or object.
- Sibling.** One of the offspring having the same parents.
- Socialization.** A progressive development of relating and integrating oneself with others, especially parents, peers, and groups.
- Somatic.** Pertaining to the body or organism.
- Sperm.** The male germ cell, or spermatozoon, containing chromosomes and genes.
- Strain.** The condition within a system or organ when it is exposed to stress, e.g., overactivity.
- Sublimation.** A dynamism of self-defense whereby the energies of a basic drive are redirected into a higher and socially more acceptable plane of expression; a mark of normal development.
- Superego.** A psychoanalytic term which refers to that part of the personality structure that is built up by early parent-child relationships which enforces the control of primitive instinctual urges and later functions as a moral force; analogous to an early form of conscience.
- Temperament.** The affective disposition and expression of emotional energies in terms of reaction speed, depth and length of emotional experiences, and relevant behavior.
- Tension.** A state of acute need deprivation, fear, apprehension, etc., which keeps certain organs or systems in a state of intensified activity.
- Trait.** A distinctive and enduring characteristic of a person.
- Trauma.** Any somatic or psychological damage to the individual, including stressful terrifying experiences.
- Unconscious.** Pertaining to that area of motivational structure or process about which the person is directly unaware.
- Valence.** A gestalt psychology term referring to those properties of an object or situation in the life space of a person, by virtue of which the object is sought (positive valence) or avoided (negative valence).
- Value.** The worth or excellence found in a qualitative appraisal of an object by a reliance on emotional and rational standards of the individual or of homogeneous groups.
- Viability.** Refers to the organism's, e.g., the prematurely born's, capacity for surviving outside of the uterus.
- Vital capacity age (VA).** A relationship between lung capacity and age.
- Weltanschauung.** A configuration of attitudes and views toward all dimensions of reality, the material and metaphysical; key tenets of a philosophy of life.
- Youth.** A postpuberal person up to his mid-twenties.
- Zygote.** As used here, the human individual during the first phase of prenatal development following conception and lasting approximately two weeks.

Appendix

TEACHING AIDS

Bibliography on Teaching Theories and Methods

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